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BOOKBINDING
ITS BACKGROUND AND TECHNIQUE



St. Jerome.

BOOKBINDING

*ITS BACKGROUND
AND
TECHNIQUE*

BY EDITH DIEHL



VOLUME I

KENNIKAT PRESS, INC./PORT WASHINGTON, N. Y.

BOOKBINDING: Its Background and Technique

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This edition published in 1965 by arrangement
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Library of Congress Catalog Card No: 64-24450

Manufactured in the United States of America

ACKNOWLEDGMENTS

IN my *List of Illustrations* acknowledgment has been made of the source of each reproduction found in Volume I. To the owners and custodians of the bindings and other objects illustrated I wish to express my thanks and appreciation for their courtesy in allowing these reproductions. I am especially indebted to Mr. Karl Kup, Curator of the Spencer Collection of The New York Public Library, to Miss Belle da Costa Greene, Director of The Pierpont Morgan Library, to Mr. William H. Forsyth, Associate Curator of the Mediæval Department of The Metropolitan Museum of Art, to Dr. M. S. Dimand, Curator of the Department of Near Eastern Art of The Metropolitan Museum of Art, and to Miss Clara L. Penny, Bibliographer of The Hispanic Society of America, for their co-operation in assisting me to locate in this country particular examples of objects of historic and artistic importance which I desired to reproduce. To my critical reader of Volume I, Mr. Karl Kup, I am deeply indebted for constructive suggestions and for his untiring assistance. I am likewise indebted to Mrs. Laurence Prendergast for her assistance in correcting my text, and to Mrs. Edna M. Kaula for her painstaking accuracy in executing the drawings for the illustrations of Volume II.

E. D.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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The Holy Bible. London, 1650.

Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Morgan MS. I.

Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Morgan MS. I.

Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of the National Museum of Ireland, Dublin, Ireland.

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Courtesy of The New York Public Library, Reserve Collection, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.
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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.
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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.
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Biblia. Cologne, Heinrich Quentell, ca. 1478.
Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of The Pierpont Morgan Library, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

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Courtesy of Mrs. V. Lada-Mocarski, Chappaqua, N. Y.

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Courtesy of The New York Public Library, Reserve Collection, New York, N. Y.

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Courtesy of Miss Julia Parker Wightman, New York, N. Y.

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Courtesy of The New York Public Library, Reserve Collection, New York, N. Y.

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Courtesy of The New York Public Library, Reserve Collection, New York, N. Y.
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Courtesy of The New York Public Library, Spencer Collection, New York, N. Y.

BOOKBINDING
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CHAPTER I

PRIMITIVE RECORDS AND ANCIENT BOOK FORMS

THE book form has gone through very few changes in physical appearance since its inception, and it is interesting to note that each change of form has been the natural and even the compelling result of a change in the character of the tools and materials used for recording the text.

The printed book is a thing taken for granted in this twentieth century, but one must remember that its origin is of comparatively recent date, and was preceded by centuries of inscribed and written documents, many of which were recorded thousands of years before the Christian Era. The form in which these documents made their appearance varied from age to age with the development of civilization.

Long before an alphabet was conceived and writing developed, men found it necessary to make records and tabulate ideas, and their early pictorial recordings, cut on stone or wood, constitute the first step in the development of an alphabet and the evolution of the printed book. This form of record making was undoubtedly practiced all over the world wherever primitive man existed, and it apparently had its origin in no one place. While these early pictorial records are not directly related to our present form of book, they are interesting in themselves and because of their bearing on the development of our alphabet.

We have the early animal drawings on the walls of caves and tombs, such as the artistic animal delineations in the caves of the

Dordogne in France, which were doubtless full of meaning and told a story to the people of the time, serving as signposts or guides to them in such matters as where they could procure food and the like. Then there are the cryptic cup and ring markings found on rocks from Western Europe to the Far East, all with a certain similarity in form, suggesting a common idea among widely separated tribes of men. There are other records of similar character, numerous and suggestive of varying degrees of civilization, in addition to the Egyptian and Assyrian inscriptions that scholars have been deciphering and interpreting for many years. But it was at quite a late period that all these records were sufficiently analyzed to supply evidence that it was through them that the art of writing was evolved. The carvings by men of the early Stone Age represent prehistoric picture books, and there is reason to consider them the earliest ancestors of all our later art and literature.

As letters of the alphabet now in use were derived from hieroglyphics, so hieroglyphics were copies from the animal and vegetable forms familiar to primitive man, and there gradually evolved three great pictorial systems of writing in the old world—the Assyrian-Babylonian, the Egyptian, and the Chinese. These systems, however, in their symbolic form were by degrees lost as complex ideas of civilization progressed. For while concrete happenings could be expressed in picture writing, the portrayal of abstract notions demanded a less primitive system.

In addition to the inaccessible Egyptian and Babylonian monuments, there are in our museums examples of pictographic and ideographic types of record keeping in the form of Chinese leaves of jade, carved amulets, notched sticks of primitive tribes, runic calendars, and the very much later clog almanacs. The wampum belts of our North American Indian are not without interest in this connection, and the knotted quipus of Peru represents an amazing system of a sign language.

We find that the uncivilized peoples, such as the North American Indians, continued symbol writing and found it equal to their needs, while the development of civilization in Egypt and China made it necessary to find a form of writing better adapted to the expression of finer shades of meaning, and these nations converted symbol writing into a syllabary, or character writing. As men emerged from a simple life to a more complex manner of living, incidents and thoughts became more involved, and their transference through records became more difficult to achieve. A sketched picture outline served well to portray a concrete message or to record incidents among primitive peoples, but was found inadequate for expressing intricate ideas and involved incidents. So we find the hieroglyphic modernized to meet the demands of civilized life. This change from the symbolic to the syllabic as a mode of expression marks the actual beginning of our alphabet. It may be noted here that the Egyptians never developed an alphabet as did the Western Europeans. They continued to retain traces of a vivid art and imagination in their form of writing.

For centuries little was known about the origin of the five great early alphabets—the hieratic, Phoenician, Hebrew, Greek, and Latin, for the key to their interpretation was lost from the fifth or sixth century until the end of the eighteenth century when the Rosetta stone, now in the British Museum, was discovered (1799). This stone contains a trilingual inscription, namely, an inscription in hieroglyphic, demotic and Greek. Since the Greek was understood, the stone proved to be the key to the mystery of the hieroglyphic, and from it a common origin of these five early alphabets was established. The Latin alphabet was found to have been derived from the Greek, the Greek from the Phoenician or Semitic, the Semitic from the hieratic, or cursive, Egyptian, and the hieratic from the hieroglyphic. And thus our twenty-six letter alphabet, which was inherited from the Latins, has been traced back to the hieroglyphic monuments of Egypt.

One of the most interesting records of the Assyrians and Babylonians is the *foundation cylinder* (see Plate 1). These cylinders are barrel shaped, hexagonal, or round. They are flat at each end, with a hole pierced through them lengthwise. They were made of clay, and upon their sides are inscribed accounts of historical events, in consequence of which they have proved a valuable source for establishing facts and data concerning this ancient period of Babylonian and Assyrian history. Stone cylinders and other records on stone constitute the first books, if we accept the dictionary definition of a book as a written or printed document.

The Egyptian inscriptions on stone were followed by *clay tablets* (see Plate 2), originating in Babylonia at the time of the Semitic invasion, about 2400 B.C. It was found by the scribes that the complicated picture characters, or hieroglyphics, incised on stone were difficult to impress on clay, and gradually the old picture writing seems to have been transformed into conventional signs of greater simplicity, and the wedge-shaped cuneiform writing came into being. This form was a modification of the hieroglyphic.

The invaders of Babylonia, who first discovered the use of clay as a material for writing purposes, made their tablets quadrangular in shape, wrote upon them while still moist, and then baked them in the sun or in an oven. Writing was impressed on them by means of a stylus, a pointed instrument usually of wood, bone or metal; and these tablets proved very durable for record keeping. They were first used for recording business transactions, such as the sale of a parcel of land or the loan of money, and later they were used for literary purposes. On the tablets representing business transactions, seals of mud were affixed in order to attest the presence of witnesses.

We have reason to believe that these early documents were stored on shelves in libraries in a manner similar to the fashion prevalent in our libraries today. They too had their covers and

their labels, as have our present-day books, the difference in kind obviously due to the difference in the substance of the material used for the text. The covers of these tablets were sometimes earthen jars, and they were labeled with clay markers secured by straws. Frequently the text continued from tablet to tablet, like the leaves of a modern book. In the seventh century B.C. a large library of clay tablets existed in Nineveh. It is said to have been established about 3800 B.C. by Sargon I, founder of the Semitic empire in Chaldea, and it was the first great library of which we have any record. It was destroyed by fire on the fall of Nineveh.

In the Oriental countries the early books were made from narrow strips of palm leaves as well as from strips of bark. The writing on these strips, or sheets, was scratched in and then blackened with lampblack in order to make the text stand out more distinctly. The leaves followed each other in sequence and were covered on the top and bottom with wooden boards, which were fastened on by means of cord run through holes at each end. Sometimes these covers were of gold or silver and were often elaborately decorated with carvings or with intricate inlaid designs.

The *papyrus roll* (see Plate 3) made its appearance at a very early period. Each roll was made of sheets of papyrus leaves pasted together. The text was written in ink by a scribe who used a sort of reed brush-pen. One of the earliest literary examples of a papyrus roll, called the *Prisse Papyrus*, is now in the Louvre, and dates before 2500 B.C. Many papyrus rolls have been found buried in the ground in earthenware jars, which served to protect them from the ravages of dampness, insects, and other injurious agents. In forming the rolls, one papyrus sheet was pasted to another lengthwise, and after the text was completed, the manuscript was rolled up tightly and placed in a cylindrical box called a *scriinium*. Some of the more valuable rolls were protected with a wrapper before being put in their boxes, and there was fre-

quently more than one roll in a box, each usually with a tag or label affixed to it.

Papyrus as a writing material has probably been in use since about 3500 B.C. It continued to be employed almost exclusively for this purpose until the early part of the Christian Era, when vellum began to supplant it as a substance better adapted to the work of the scribe and less vulnerable to injurious agencies. However, it continued to be used in Western Europe far into the tenth century, and it is used in Egypt even at the present time for recording certain documents.

When the scribe began to write on papyrus, he was forced to change his writing implement from the hard stylus employed on clay and wax to a tool less incisive, and he developed the brush-pen. It was made out of a reed and had a fibrous pointed end. Both black and red inks were used on papyrus documents, and these were made by the scribe as he needed them — the black ink being a mixture of lampblack, gum, and water; and the red ink, a sort of metallic infusion. A sponge was kept at hand by the scribe while laboring over a papyrus text for the purpose of erasing writing when in need of correction, since the surface of papyrus does not admit of scraping with a knife for erasures as does the surface of vellum.

The papyrus plant was widely cultivated in Egypt along the Nile and is still found in the upper Nile region and in Abyssinia and Sicily. It is a very decorative plant that grows in bush form, with many stalks coming up from a single root, each stalk ending in a tufted head. It resembles quite closely, and is related to, some of our common North American sedges.

We learn from Theophrastus that many useful articles were fabricated from the papyrus plant. He tells us in his history of plants that the tufted heads were used for making garlands for the shrines of the gods and that the roots were made into different utensils and were utilized for fuel. According to Theophrastus,

boats, sails, cloth, cord, and writing material were all made from the stems of this plant.

Papyrus was made in Egypt by slitting the plant stems and cutting them into fibrous strips, which were laid side by side on a board until the desired width had been reached. Then at right angles across this layer of strips another layer was laid. These two layers of split stems, supported by the board, were then immersed in the water of the Nile, and after being thoroughly soaked, were left to dry in the sun. They were later hammered into flat sheets and finally polished with pieces of ivory or with a shell.

There was an early superstition that attributed certain chemical properties to the waters of the Nile, which were thought to make the strips of papyrus adhere to each other, but since papyrus was made on the Euphrates and in other places as well as upon the Nile, another explanation for this mysterious cementing together of these strips must be sought for. A theory has been advanced that inherent in the reed stems was a glutinous substance which exuded from the strips after being wet and served to bind them together. But a simpler and more probable explanation is that the early papyrus makers used some sort of adhesive which they applied to the strips. The papyrus produced by the Romans was remade from imported papyrus, and the brittle condition of the Latin papyri is evidence that the Roman papyrus was of inferior quality as compared to the Egyptian.

So long as papyrus remained the chief writing material, the roll form of book was inevitable. Papyrus could be cut into sheets and written upon, but its texture is more or less brittle and it does not admit of being folded without injury. Hence the roll form was continued for papyrus manuscripts.

The Greeks modified the Phoenician alphabet for their use probably before 700 B.C. and later both Greeks and Romans adopted the roll form of book. One of the earliest examples extant of a Greek papyrus roll dates back to about 280 B.C.

Skins of animals were used as a writing material at a very early date, though we know nothing about the earliest method of preparing them for manuscripts. It is probable that the character of the skins first used for writing purposes was rather heavy and more like a tanned leather than the thinner and better prepared ones found in the skin rolls of a later period. In the second century B.C., a great improvement took place in the preparation of skins used for writing on. This finer substance was called parchment or vellum, and was not tanned like leather but was prepared quite differently.

The invention of vellum has been attributed to Eumenes II of Pergamum, though it is known that prepared animal skins were used for MSS. before this time. It appears, however, that a new method was employed for preparing skins during the reign of Eumenes II, and a finer material was fabricated, which was smoothly finished on both sides instead of upon one side as previously.

According to a popular story, Eumenes, who was interested in accumulating books for his library, found papyrus difficult to procure, since the Ptolemies forbade its export from Egypt, hoping to check the growth of a rival library. Hence he was forced to substitute skins for his books. Be that as it may, we know that during the second century B.C., when Eumenes II was in power, Pergamum was the chief center of the vellum trade, and the term "parchment" doubtless derives its name from Pergamum, the early seat of parchment and vellum making. The term "vellum" is in general use at the present time to denote both parchment and vellum, though among manufacturers of these products parchment connotes a material made from the skins of sheep or goats, while a finer material made from the skins of calves or of stillborn lambs is called vellum.

The making of parchment and vellum is not a complicated process, though it is a very messy procedure. One of our Ameri-

can nuns, a scribe and illuminator, made her vellum skins for years, and she also produced the rare purple vellum, the making of which is an art thought to have been lost since the Middle Ages.

To make vellum, the skins are first washed, and the under-surfaces scraped and cleaned. Then they are put into a vat of caustic lime and are left to soak for many days until the hair is sufficiently loosened to be easily removed. To remove this hair, the skins are placed on a wooden block and are flayed vigorously. A second scraping and many washings follow, after which the skins are stretched tightly and evenly on a frame and are fastened there to dry. During the drying process more scraping has to be done, and the inequalities of the surface are pared down with a sharp knife. The drying often takes weeks, and the skins are kept evenly stretched during this time. When finally dry, they are rubbed down with powdered pumice and then given a dusting with finely powdered chalk. It is probable that a method similar to this was employed in preparing the fine vellum used on early MSS.

Rolls made of vellum were comparatively rare in Egypt, where papyrus continued to be the chief writing material. But their use was widespread in western Asia at an early period, and the vellum roll was the prescribed form for books used by the Jews in their synagogues.

Vellum rolls were written upon in various ways. The writing was on one side of the material only, and that was the so-called recto of the skin, which had been polished to a smooth surface. The earliest ones were written with the lines running across the width of the roll, and the manuscript was held upright as it was read, and unrolled from top to bottom.

The Buddhist prayer wheel contains a roll written with the lines running along its length, and the roll has to be unrolled sideways in order to be read. It is a curious fact that these rolls were

never really read, but with each revolution of the wheel, the suppliant is given credit for having read the text. The best-known prayer wheels are the small hand ones seen in Tibet.

There is another form of rolled manuscript, which is a modification of the Tibetan form, found in the Jewish scrolls. On these, the writing runs as in the Tibetan roll, but instead of running the whole length of the roll it is written in page form with the lines following under each other within a prescribed space. The roll is unrolled sidewise (see Plate 4).

This page form of roll suggests a type of written text found in the East among primitive nations. The writing is on a continuous sheet of vellum, paper, bark, or other writing material, and is written the length of the sheet with spaces left between all pages of writing. It is then folded or pleated like an accordion, and usually the folded text is placed between two boards in order to keep it flat, but it is not fastened in any way.

A book of this type is akin to the Oriental *Orihon*, or stabbed binding, which has been in use in China and Japan for centuries. The *Orihon* is written in the manner just described and is likewise folded in accordion pleats, but instead of being left unfastened, the text is placed between thin boards made of pasted paper and is laced into its covers through holes stabbed along the back edge. Its covers are made so that they form a sort of hinge, which allows the book to be opened and read more easily.

Following the roll came the Roman *diptych* which was made of two wax tablets, or *pugillares*, joined together at the back with rings. The *pugillares* were rectangular pieces of ebony or boxwood, having one side slightly hollowed out so as to receive a filling of blackened wax on which the text was written. Sometimes these tablets were hinged together in threes, called *triptychs*, or occasionally in greater numbers. The writing was impressed on the wax surface by means of a stylus, which was made of wood, bone, brass, or some other hard material. It had one end pointed

for writing, and the other flat for erasing. On the text side of the diptych, spaces were often left on the outer edge, and the wood was cut out to form a receptacle for holding the stylus.

Diptychs were also made of ivory and were elaborately carved, the earlier examples of which are the finest. The ivory diptychs, which were sent by the Roman consuls in order to announce their election to office, were called consular diptychs, and they were usually larger than the pugillares. Besides the consular diptychs there were also ecclestical diptychs, which bore writing pertaining to the ecclesiastical world, such as lists of martyrs. The Roman diptychs, like the Oriental stabbed bindings, were a near approach to the later flat form of book. They are a sort of link between the roll and the *codex*, or flat book of the Christian Era.

CHAPTER II

THE BOOK OF THE MIDDLE AGES

THE roll form of book used by the ancient Babylonians and Assyrians changed for the Greek and Roman literature when vellum began to supplant papyrus as a writing material. It was then that the roll was superseded by the *codex*, the manuscript in flat book form composed of separate folded sheets of vellum, stitched together in quires, or sections, and containing writing on both sides of the sheet, or of unfolded sheets of papyrus held together by a cord passed through holes pierced along the back margins of the sheets.

It was found that vellum, unlike papyrus, could be folded without injury, and for the codex the vellum was cut into sheets which, after being ruled by the scribe with a blunt tool, were written on and were then folded and arranged in proper sequence. These folded sheets were gathered together in units of four, each gathering or section constituting a *quaternion*, from which name our word "quire" is derived. The gathered quires were at first just stitched through the folds singly by the *bibliopegus*, or binder, but soon groups of quires began to be stitched one to another by winding the sewing threads around a strong strip of leather or vellum placed at right angles to the folds at the back of the book. They were then usually encased between two wooden boards, which were afterwards covered with roughly cured skins. These sturdy covers served as a protection to the ancient MSS., which doubtless owe their preservation in large measure to this simple strong binding.

The codex in appearance and construction is surprisingly like our present-day hand-bound book. It was really a development of the Greek and Roman diptych, which we might call the primitive codex. This flat book marked the beginning of the binder's craft. M. Paul Lacroix writes: "As soon as the ancients had

made square books more convenient to read than the rolls, book-binding was invented.”¹ The only sort of real binding in use before the appearance of the codex was the stabbed binding, which was not suitable as a device for protecting the refractory vellum codex texts.

The vellum flat book had numerous advantages over the book-roll. It was more convenient to handle, and since the text was written on both sides of the sheet, a codex manuscript occupied far less space on the shelf than the rolled book. Hence a single codex could hold the contents of a work which must be distributed through many volumes in roll form. Being more compact, it was much easier to read, and its convenience quickly recommended it to favor.

In the early centuries, after the flat book form had become more or less usual, papyrus as well as vellum was made up into leaved books. In fact, the greater number of papyri of the third century A.D. containing Christian writings are in the flat book form, while on the other hand, the non-Christian writings of that period kept to the roll form. So it is that the codex form of book becomes identified with the Christian Era.

In the fourth century the competition between roll and codex in the literary field was finished. From then on the roll remained in use only for records and legal documents and for the sacred books of the Jews. It is interesting to note that the Jews have continued to use the vellum rolls even to the present time, requiring that their synagogue books be written on vellum and in roll form.

The shape of the codex book was square, resembling what we think of as a quarto, though it was made up in folio format. The title was usually written at the end of the text. Even down to the fifteenth century, the practice of writing the title of a manuscript at the end of the text was prevalent, and after the title there were added such items as the date, the name of the scribe, and other details concerning the manuscript. This matter was all in a sort

of final paragraph called the *colophon*. The early Christian manuscript is replete with interest for both artist and craftsman. It beggars description because of its illusive qualities and undorned simplicity — a product of the silent monastery, written in the beautiful, clear hand of the early scribe.

In the monasteries of Europe, the monkish scribes collated and copied both religious and classical literature and thus made them available to us by producing the copy for the later printing press. Chief among the earliest monasteries was that at Monte Cassino, which was instituted in the year A.D. 529, by the order of St. Benedict. These monasteries were in a measure asylums of safety in the Middle Ages when ruthless warriors sacked the towns and destroyed and pillaged, though they did not always escape the ravages of war. It seems a pity that during our supposedly enlightened time this early Benedictine monastery at Monte Cassino, which had been rebuilt after previous ravages, should have fared no better than in the so-called Dark Ages at the hands of the warring Lombards and Saracens. For here it was that under the inspiration of Cassiodorus, St. Benedict organized a *scriptorium* that was a model for future ones. Here the monks worked tirelessly according to their Rule, transcribing books, binding them, and distributing them to the world.

The scriptorium of a monastery was usually a large room situated over the chapter house. The monastic scribes worked under rigorous discipline, and the rules of the scriptorium were very definite. Artificial light was forbidden for fear of possible injury to the manuscripts. Absolute silence was insisted upon, and no one was allowed in the scriptorium except dignitaries of the monastery. The monk, called the *armarius* or *librarius*, was the one who presided over the scriptorium, attending to all the details of providing desks, pen and ink, parchment, erasing knives and other necessities for the work of the scribes. When no special room was set apart for this work, the scribes worked in small cells

bordering the cloister of the abbey. If the monastic scribes were not capable of finishing a manuscript by rubrication, the work was turned over to secular scribes to be completed.

The reason for binding books is primarily to preserve them intact. Unless the sections were held together and bound between covers, they would soon be separated from one another and texts would rarely survive in their entirety. The early bindings produced in the monasteries served this purpose well. After sewing the sections together, the monastic binder laced them between two wooden board covers with the ends of the cords or strips around which the sections were sewn. Then a piece of leather was pasted over the back of the book and was drawn over onto the sides of the boards far enough to cover the joint where the boards were hinged to the back, leaving the front part of the boards without a leather covering. Thus we have the mediæval "half binding." Later, the leather was made to cover the boards entirely, developing the "whole binding." And when it was realized that these flat surfaces of leather offered an excellent opportunity for decorative designs, the art of binding books with decoration on their covers began to be practiced.

That wooden boards were used as covers on the early MSS. was doubtless due to the fact that the vellum on which they were written had a strong tendency to curl, and could not be made to lie flat without some pressure. Even the weight of the heavy wooden boards had to be augmented, and the added pressure produced by placing metal clasps over the edges of the books was resorted to in order to keep these texts from yawning. I might add that metal bosses were fastened to the sides of these early books probably for the twofold purpose of decoration and keeping the leather from being scratched or harmed as the book lay on its side.

There were monasteries in great numbers in all the European countries, and these religious institutions were the chief source of book production in early times, but the origin of most of the

monastic bindings extant is Germany, Austria, and the Low Countries²— southern Germany, and especially Austria, contributing the greatest number of written books and of bindings. One of the reasons for this rarity of French and English fifteenth century monastic bindings is that many books were systematically destroyed during religious wars in these two countries, and then, too, there were possibly fewer bindings produced in England and France than in the other countries of Europe and many of the original bindings are lost to us also through the process of rebinding. The Italian monasteries were prolific producers of written manuscripts, but their monks do not appear to have had much zeal for decorating their bindings.

Outside the monasteries no regular practice of bookbinding seems to have been established in the early Middle Ages, probably because of the great scarcity of books. The monks bound practically all the manuscripts they wrote, and the few that were bound outside the walls of these monasteries were not so numerous as to keep a lay binder continually occupied and become the means of a livelihood to him. It must be remembered too that owing to royal decrees no one outside the monasteries, except men of noble birth, was allowed to practice more than one art and craft, and therefore it was only the monks who were skillful in many crafts. For this reason it can be readily understood why bookbinding made such progress in early times in monasteries while it was being neglected in the towns. Later, in several countries of Europe, some of these noblemen who shared with the monks the right to practice many arts established workshops in their households, where they employed scribes, illuminators, and bookbinders and kept them busy producing books for their libraries.

If books were as scarce in the Middle Ages as Dr. Goldschmidt believes, it can be readily understood why the services of lay binders were not required to keep pace with the output. However, there appears to be a wide divergence of opinion concern-

ing the number of books produced during this early period. Goldschmidt is of the opinion that the number was very limited, and he quotes M. R. James's catalogue of the library of Christ Church, Canterbury, in substantiating his belief that "even the richest and most famous libraries before the year 1200 did not contain more than 500-700 books all told."³ On the other hand, Henry Thomas, in his book on early Spanish bookbinding, points out that Moorish Spain was far ahead of Christian Europe in the matter of libraries. Describing the splendor of the Moorish capital of Spain in the tenth century he quotes a Spanish author who cites a royal library of four hundred thousand books existing not later than the beginning of the eleventh century.⁴

Influence of the Church manifested itself in art in the early part of the Christian Era and may be noted in the type of decoration found on bound copies of the Gospels and other service books which were placed upon the high altars all through the Middle Ages. These books were bound sumptuously with precious metal covers inlaid with jewels, and many of them had carved ivory or Limoges enamel plaques containing religious subjects set into their covers. Massive books bound in colored leathers are said to have been carried in public processions of the Byzantine emperor during the middle of the fifth century, and bindings with Byzantine covers of gold, silver, and copper gilt, inset with jewels, have been identified with the sixth century.

Fine and genuine examples of Byzantine bindings are quite rare. Most of the known specimens are no longer attached to the MSS. they originally covered, but many are preserved as loose covers, and others have been used to cover books for which they were evidently not originally designed. Imitations of Byzantine bindings are not uncommon, and collectors of such bindings have been frequently victimized, for they are evidently not too difficult to imitate, and in order to judge them expertly, one should have technical knowledge of many crafts such as that of

the gem cutter, the gold and silversmith, enameler, and book-binder, and should be something of an antiquarian as well.

Sumptuously bound books of various types continued to be made even after mediæval times. For the most part they are not examples of the binder's craft, but represent rather the work of goldsmiths and probably independent artists. Examples may be found in public libraries, in museums, and in private collections, though a great number have been destroyed because of religious prejudices or by predatory minions of conquering warriors, who have appropriated their costly covers without regard to their historic or artistic value.

Celebrated Christian artists came from Italy to Byzantium during the reign of Constantine and brought with them a decadent form of classic art prevailing in Rome at the time. These artists were apparently unable to create for themselves a new technique and worked along the old lines which they adapted to express the new Christian ideas. Later, in the sixth century, Persian art began to affect the Byzantine style, and a strong Oriental influence may be noted. By the tenth century, the school of Constantinople was well established, and its artists were sought after by both Italy and Germany. These men carried their art throughout the greater part of Europe, where the Byzantine style became apparent in bookbinding decoration.

Arabic art was doubtless introduced into Europe by the crusaders, and its influence may be observed in the forms of winged birds and beasts appearing on decorated bindings of the Middle Ages. Ornamented sunken panels also were of Arab origin, which fashion apparently came to Europe through the Venetian binders.

The art of enameling was known in very early times and reached perfection in Constantinople in the ninth century. This art was introduced into Constantinople from Asia, and hence the Byzantine enamels were executed in *cloisonné*, following the

Oriental method. The cloisonné method, which is still practiced to perfection in the Orient, is a sort of filigreed enamel. The design is outlined by soldering fine wires of metal onto a metal undersurface, and then the empty spaces are filled in with a colored paste which is vitrified by heat, producing a glassy appearance. The Germans and the French practiced the so-called *champlevé* method of enameling, in which the surface of a metal plate is hollowed out to form the design, and the colored substance is placed in these hollows (see Plate 5). In identifying enamel book covers it is important to be able to distinguish between these two methods. The Italians practiced still another manner of enameling in the thirteenth century and produced the translucent enamels on bindings which, though very brilliant, were fragile, and there are few specimens extant.

The monastic leather bindings were for the most part undecorated until later in the Middle Ages. As to when and where the first decorated leather bindings were made cannot be stated with certainty. There are various opinions concerning the origin of these bindings. Evidence seemed to point to England as their country of origin, and place them in the twelfth century. However, decorated leather bindings dating from the twelfth century have been accredited to Spain.⁵ And some twelfth century Romanesque bindings appear to have been produced in Germany. Romanesque bindings which belonged to the Clairvaux monastery in France have been found to be the work of French craftsmen. So it is, Mr. Hobson has come to the conclusion that the art of decorating bindings with engraved stamps was not English, but international,⁶ though he points out that all the finest specimens surviving are either French or English.

We know of at least one very early decorated leather binding predating the twelfth century, to which I shall refer later, but it is an isolated example, and there is no indication that this art was in general practice at that time.

The Romanesque bindings were not decorated by means of drawing designs on their covers with a knife or graver, but by impressing figured metal stamps on the leather in "repeat patterns." These remarkable bindings are especially noteworthy because of the great number of finely cut different stamps which appear on them. The stamps represent both Biblical subjects such as Samson and the lion, David with a harp, the Virgin and Child, and subjects of mythical origin like centaurs and mermaids. These incongruous mythical figures appear side by side with the Biblical ones.

Romanesque bindings were produced in England principally at Winchester, London, and Durham, and they were also produced in some monasteries in France. There is scant evidence that any Romanesque bindings of great merit were created outside of these two countries, though a single German example has been discovered, which is characterized by inferior workmanship and tool design.⁷ The decoration of all these bindings was doubtless entirely done by hand without the aid of a press, which came into use later for stamped bindings.

A distinguished characteristic of the Romanesque bindings may be noted in the scheme of decoration used. They usually had entirely different designs on their upper and lower covers, in contrast with the later stamped bindings on which the designs were similar on both covers. In this respect the twelfth century binders probably imitated the sumptuous service books then in use in the churches. On these precious metal bindings, the lower covers were flat, to allow the book to rest securely on the altar when not in use, while the upper covers were more elaborately decorated with insets of jewels and embossed designs.

In discussing Romanesque bindings Mr. Hobson protests against foreign critics of England and thinks them prejudiced for two reasons. First, he points out that bibliographers have studied principally the fifteenth century, and he acknowledges

that at that time England was a backward country, "impoverished and brutalized by the long barbarism of foreign and domestic warfare." Secondly, he refers to the fact that fewer mediæval works of art have survived in England than in France and Germany, owing to their systematic destruction in the seventeenth century. For these two reasons, he believes the general impression prevails that England was always backward and in-artistic—"a reluctant scholar sitting at the feet of France." But while he admits that this evaluation of England may be just, as far as the fifteenth and sixteenth centuries are concerned, he unequivocally denies that England failed to keep pace with the Continent in artistic initiative outside of this period. He cites the fact that Alquin of York, the English Benedictine monk, was sent for by Charlemagne to direct his imperial school at Tours as early as the eighth century, and gives later instances of English influence on Continental art, concluding with the statement that in the last part of the twelfth century "England was a home of art and letters, no less likely to lead the mainland than to follow it."⁸

In collections of mediæval books found in museums as well as in private libraries, it will be noted that there is a strange absence of examples of decorative stamped bindings identified with the thirteenth and fourteenth centuries. The cause of this is problematical, and will be discussed in a later chapter.

The custom of chaining books to shelves and reading desks was common all over Western Europe in mediæval times and continued down through the seventeenth century (see Plate 6). This practice was no doubt due to the fact that books were difficult to replace and could not be left too accessible to the careless reader or a possible thief. Small books such as Bibles and prayer books were chained to the backs of the pews in private chapels in England, and books chained in churches were quite common in the Reformation days. Whole collections were chained in the large cathedral libraries, each volume being fastened to the shelf in its

assigned place. The chains were of iron, averaging about three feet in length. One end of the chain was fastened to the volume with a ring and the other end was either clamped to a shelf or fastened by means of another ring to a locked iron bar extending along the shelf. The books could be taken from the shelf and rested on a near-by desk provided for the purpose.

The chained libraries at Hereford Cathedral and Wimborne Minster are the two largest and most interesting ones in England. But the largest collection of chained books now extant is that in the Laurentian Library in Florence (see Plate 7). In this library the books are chained to desklike carved wooden stalls. This method of storing chained books differs from that employed generally in England, where the books were placed on shelves one over the other (see Plate 8). The Italian method must have been far more convenient for the reader, since the books were more accessible and their chains were not easily entangled as they were bound to be in the English libraries where they hung from shelf to shelf.

Chained books, or *catenati*, were normally placed on the shelf with their fore-edges outward, and on these edges the titles were written. There are several examples of chained libraries still left in England, in addition to the larger ones just mentioned. A complete list of these libraries is given in William Blades's *Books in Chains*. In the same book may be found excellent photographs of a number of interesting chained libraries.

Although not primarily connected with bookbinding, the introduction of papermaking into Western Europe had a direct influence on the craft of binding, and for this reason I feel bound to mention it. The opinion long held by most authorities on the subject is that papermaking had its origin in China in the early part of the first century A.D. According to Dr. Carter, this early paper was made from the bark of the mulberry tree, from hemp, and from various plant fibers taken from rags.⁹ Paper was introduced

into Spain about the tenth century and began to be manufactured in that country sometime during the twelfth century. By the fifteenth century it was made in all the principal countries of Western Europe.

The manufacture by hand of this new writing material was well understood in Western Europe by the middle of the fifteenth century when the invention of movable type set the first printing press in motion. It was a happy coincidence for the first printers that this Oriental discovery had come to the West and had been converted into a European industry, for vellum was found very difficult to print on, and paper, which proved to be a most satisfactory medium for this purpose, soon began to be utilized in sufficient quantity to keep the paper mills busy.

As a result of the revolutionary method of printing books with movable type, their multiplication increased enormously and the printing press was made to do quickly and easily the work that the scribes had been doing for many centuries slowly and laboriously. In consequence, the binder's craft took on a new lease of life and developed from a monastery occupation into an organized craft in the world of book production.

Although the history of block books is not within the scope of this survey, it is a subject germane to printing and binding, and I would remind the reader that these beautiful pictorial books that in the Middle Ages made graphic the teachings of both the Bible and other subjects were printed before the invention of movable type. The art of xylography, or printing from wood blocks on which illustrations and texts were cut, was practiced in a primitive fashion by placing a sheet of dampened paper over the surface of an engraved block after it had been coated with a sort of distemper and then by rubbing the back of the paper carefully with some sort of burnisher until the raised outline of the pattern was transferred to the paper. Even from this sketchy description of block printing, it can be readily understood why most block

books have printing on only one side of the sheet, though some block books were made up of two sheets of paper pasted together, bearing printing on both sides of the book leaf.

These block books were the first books printed in Europe, but the oldest printed book of which we have any record is an Oriental block book in the form of a roll, called the "Diamond Sutra," printed in 868. It was discovered by Sir Aurel Stein in 1907 in the sealed "Caves of the Thousand Buddhas" in Turkestan.¹⁰ This book was in perfect condition when found, owing to the climate in Turkestan, which like that of Egypt preserved intact the books that were buried there.

A picture of the Middle Ages would be very faulty without some reference to the movement, or school of thought, called Humanism, which had a direct connection with the activities in the period following the so-called Middle Ages. Humanism broke through the traditions of scholasticism and devoted itself to a firsthand study of the classics, in order to get a picture of life itself instead of a philosophy about life. The movement began with Petrarch (1304-1374), who has been called the "father of Humanism." In their study of the classics, the Humanists set themselves to clearing away errors in the imperfect texts that had been copied by the monastic scribes, so that when printing came into being, the classics were carefully collated and ready for the printers' use. The Humanists also established what has been termed a "lower criticism" in their endeavor to recover the Latin way of life, stressing man as a free being and demolishing the orthodoxy of the Middle Ages.

The Middle Ages cannot be thought of as a period existing between fixed dates. Our old schoolbooks taught us to place it between the fall of the Roman Empire (A.D. 476) and the fall of Constantinople in 1453, but neither the mediæval period nor the Renaissance can be confined within strict chronological limits, as they overlap and scholars differ both as to the significance of

these periods and as to placing them within definite confines of time. This is understandable, since in Italy we find the spirit of the Renaissance manifesting itself as early as the thirteenth century, whereas in England this spirit was not captured until nearly two hundred years later. Roughly speaking, the mediæval period might be considered as covering about a thousand years, extending from the middle of the fifth century to the middle of the fifteenth. There was a time in the Middle Ages that is usually referred to as the Dark Ages, but certainly this cannot be said to characterize the whole period. Recent mediævalists draw a picture of the Middle Ages which is not unlike what we think of as the Renaissance, and it seems to me that one must construct an idea of mediæval times as representing a period connecting the fifth century with the Renaissance, whenever that may have begun, and overlapping it. I have a conviction that the latter part of the period which has been termed the Middle Ages should be thought of as a period of new birth, or renascence. Whether it is considered a sort of transition period, or a part of either the Middle Ages or the Renaissance, depends upon the accepted meaning of these two periods.

However, for a treatise of this kind, it is necessary to limit periods arbitrarily when there are no exact dates set for them, and for convenience I am reluctantly basing the mediæval period on the popularly accepted opinion that it ends about the middle of the fifteenth century, placing the advent of printing on the borderline, though I am inclined to believe that I am trespassing on the Renaissance in extending the time of the Middle Ages to this late date.

CHAPTER III

RENAISSANCE AND MODERN TIMES

THE revolutionary ideas of the Humanists pervaded the early Renaissance and found expression in the free creative spirit that manifested itself in art. The flowering of this period certainly appears to have sprung from the seeds planted in the preceding period. In book decoration there was a notable quickening of energy and originality in expression, as well as a new enthusiasm for producing beautiful bindings. Printing, without doubt, served to stimulate the craft of binding, and it was in the fifteenth century that stamped bindings under this influence began to be made again after a strangely quiescent period of some two hundred years. The binding of books extended beyond the monasteries as books were produced in greater numbers, and from the first part of the fifteenth century bookbinding began to be developed into a regular craft and trade, keeping pace with the printing press. Bindings of this period, generally in calf and pigskin, were decorated in blind, with ornamental stamps or dies representing flowers, animals, and various stylized decorative subjects. These pictorial designs were enclosed in round, square, lozenge-shaped and other forms, usually bounded by lines.

In addition to ornamental stamps, rolls with a continuous ornamental pattern began to be used at the end of the fifteenth century¹¹ And later, in Germany, rolls with a pattern divided into segments came into vogue.¹² On these were frequently engraved the initials of the bookbinder, interrupting the pattern of the design. Both individual stamps and rolls were used on the covers of books according to the taste of the binder, the ornamental designs having no bearing whatever on the contents of the book. In fact, the designs were often most incongruous with the subject of the text.

The monasteries used heraldic stamps and images of patron

saints as well as stamps indicating their individual binderies, and they even stamped their full names on the sides of some of their bindings. It is to be remembered that at this time there were bookbinders among priests outside the monasteries as well as among cloistered monks. One of the most famous of these binder-priests was Johannes Rychenbach, chaplain at Geislingen in Württemberg, who bound books during the fifteenth century. He is said to be the first binder who signed his bindings with his name.

The two foundations of Gerard Groot the Hollander, who formed the Windesheim Congregation and the Brotherhood of the Common Life in the last part of the fourteenth century, were very active in the production of books. These two brotherhoods made book production their chief activity and they bound books commercially as a regular profession. More books appear to have stemmed from these binderies at this period than from any other single source.¹³ The revival of bookbinding in the fifteenth century is undoubtedly in large measure connected with the monastic movement of reform which began in the monasteries after the decay of the Church in the fourteenth century and was continued during the Reformation.

Two very different types of design characterized these blind-stamped books. In one type, the surface of the leather was divided up into compartments and borders by means of lines, and then impressions of small engraved stamps were arranged in the empty spaces. A distinctive style of space division and arrangement of stamps was developed in the various European countries (see Plate 9).

The second type of decoration was marked by a totally different scheme of space division. The design was bolder and less stiff and formal. Instead of dividing up the whole side of the book into a number of parts, the surface was so divided as to form a large central panel set off by a framework of lines. The panel was decorated with a freely drawn design which was impressed on

the leather by means of an engraved die (see Plate 10). Frequently the designs were pictorial and rather imaginative and original. These panel-stamped books are among the most interesting and beautiful of the period. They show a freedom of expression and a creative quality that are lacking in the compartment arrangement of decoration, which by its very structure seems to have been intended for a purely conventional treatment. The Low Countries produced some of the finest specimens of early panel bindings extant, though many of the pictorial examples of French, English and German origin are interesting and delightful.

The fifteenth century binders apparently copied some of their tool forms from the twelfth century bindings, as various motifs characteristic of the earlier bindings reappeared in this later period. Reproductions of the stamps used in both these periods may be found in Weale's *Early Stamped Bookbindings in the British Museum*. In this book Weale gives a minute description of 385 early stamped bindings, from which the reader will be able to gain detailed information concerning the kinds of boards and leather used and the manner in which designs were broken up into compartments or panels. In this connection, Goldschmidt's work on Gothic and Renaissance bindings, Hobson's later book on English bindings before 1500, and other books noted in the appended list of books should be consulted by the student desiring authoritative information about leather stamped bindings.

Blind stamping on leather bindings with small cold tools was first done entirely by hand. The small stamps were cut, as were the panels, so that the impressions stood out in relief, which gives the opposite effect from that made by the heated tools used after the development of hand tooling, which impressed the design into the leather. This seallike cutting left the design depressed in the die, and when it was pressed upon leather previously dampened, the hollows forming the design were squeezed full of moist

leather, leaving the pattern standing out against a flattened background. After the leather had dried, the raised design became hardened and was solidly outlined.

The small stamps in the Gothic bindings of this period were usually arranged in vertical or horizontal rows. Hobson offers a very interesting and ingenious hypothesis to explain the smaller number of stamps used at this time than were used on the Romanesque bindings of the twelfth century. He attributes it to what he calls "the higgling of the market." In other words, it represents an economic situation existing between the stamp cutter and the binder. The stamp cutter naturally wanted to sell as many stamps as possible and succeeded in getting the twelfth century binder to buy stamps in great quantity, whereas the fifteenth century craftsman appears to have been less lavish in his purchases. Mr. Hobson explains this on the ground that the monks, who were the early binders, had the funds of their monasteries back of them, while the later lay binders had no such subsidy and had to pay for their equipment out of their personal earnings.¹⁴

The technique of stamping the large engraved panel stamps on the sides of a book introduces a sort of mechanized method into binding for the first time, for although the presses that were used for this purpose were operated by hand, they were really machines. They not merely held the book, like the sewing bench and other small presses then in use, but they actually performed the operation of stamping.

This process of impressing the large stamps on the sides of a book is thought to have been achieved by first dampening the leather and then tying the panel stamps on both sides of the book. After this was done, the book was put into a screw press and left under heavy pressure until the dampened leather had taken the impression of the stamp, or die, which had been engraved with the design cut intaglio, like a seal.

The panel stamps were used frequently on the small octavo books, which were produced in quantity soon after the printing press took over the work of the scribes. The panels covered almost the entire surface of the leather on these small books, and probably the binders resorted to their use because the work of decoration was more quickly done by stamping the whole side of a book with a single large stamp in this manner than by decorating the sides of a book by hand with many small stamps (see Plate II). However, their use cannot be attributed entirely to their laborsaving advantage, for doubtless the spirit of the times impelled the artists and binders to produce these beautiful little books with their free, original designs.

The size of a book is no small factor in the matter of design. It will be remembered that most of the early mediæval books were fairly large, either quarto or folio format (except books of hours and other prayer books), and the smaller octavo books were not frequently met with until after paper was used as a material for the text. Here again we may note the influence of material on the book form, for stiff vellum did not lend itself as did paper to being folded several times and made up into small books. The octavo book was popularized through Aldus, the Venetian printer, about the end of the fifteenth century, and this size was still further reduced as time went on. In the sixteenth century the French printers at Paris and Lyons issued books half the size of the octavo, and in the following century the printing house of the Elzevirs in Holland put out 32mo books, which were printed on thin paper and sold very cheaply.

Covers made of pasteboard were put on books in Western Europe at the end of the fifteenth and beginning of the sixteenth centuries. They were made by pasting several pieces of paper together until the desired thickness was attained. After these covers were fastened to the book, a woodcut design printed on paper in black and white was pasted over both the covers and the back of

the book.¹⁵ Because of their perishable character few of these bindings have come down to us. By identifying the engraver who designed the woodcuts, a number of paper bindings have been ascribed to Ferrara and others to Venice. Some are of German origin, but they differ from the Italian bindings in that the woodcuts were evidently taken from publishers' wrappers, whereas the Italian woodcuts were designed especially for book covers. These paper bindings are exceedingly rare.

A unique style of book decoration was developed during the Gothic period on the Continent by means of cutting the leather and fashioning it so that it stood out in relief. The Germans appear to have excelled in this art, which is generally designated as *cuir-ciselé*, and which according to some authorities was practiced only during the fifteenth century (see Plate 12).

There seems to be some confusion in nomenclature concerning this manner of decorating leather. It is described as *cuirbouilli* by M. de Laborde.¹⁶ Another authority also speaks of Nuremberg and Bruges bindings of this type as *cuirbouilli*.¹⁷ Two styles of *cuirbouilli* are described, one cut with a knife and raised in relief (apparently identical with the so-called *cuir-ciselé* technique), which de Laborde dates back to the middle of the ninth century, and another style which was punched and worked with a stamp or ornamental die used cold, attributed to the fourteenth century.¹⁸

However, all the authorities describe the cut process in the same way, and as I find *cuir-ciselé* more accurately descriptive of the method used in producing this kind of leather decoration, I will refer to it by that name. The tools used for these *cuir-ciselé* bindings were very simple, in contrast to the engraved stamps used for impressing repeat designs on stamped bindings, but the technique employed in executing the designs required much greater skill than that demanded for executing stamped bindings. Each one of these *cuir-ciselé* bindings represents a different,

original design wrought by hand directly on the leather without any patterned tools. First the leather was dampened, and then the design was outlined on the book cover with a sharp tool or knife and afterwards made to stand out in relief by punching and deepening the leather around the outlined pattern. Sometimes the design was hammered from the back, causing it to appear embossed on the deepened background that was usually worked over by a stippling process similar to the later gold *pointillé* designs.

The outstanding masterpieces of this type of binding are to be found in the Nuremberg specimens, which exhibit great beauty in design and richness in effect. Almost all the cuir-ciselé bindings now extant are of German origin. The French and other Europeans, while practicing this art on various leather objects, apparently did not apply it to bindings. The famous Spanish cut-leather work of Cordova is well known and was apparently imitated in other countries, but as applied to bindings the Germans are the outstanding craftsmen who worked in cuir-ciselé.

Professor Jean Loubier has made an exhaustive study of "lederschnitt," or cuir-ciselé bindings, and in his work *Der Bucheinband* will be found much interesting data on this subject.

Sarre mentions bindings found in Chinese Turkestan dating back to the sixth century which are done in cut leather with solid geometrical ornamentation. He also speaks of blind-tooled embossed bindings found in Turkestan and identified with this early period.¹⁹

A new method of decorating leather bindings appeared in Europe shortly after the middle of the fifteenth century, with the introduction of gold tooling. Until a comparatively recent date it was the accepted theory that gold tooling "à petits fers" originated in the East and was introduced into Western Europe at Venice, where Eastern workmen practiced this art in the bindery of the Aldus printing house. Most of the authorities on binding

advanced this opinion, but the theory has been attacked in recent years, and a controversy has developed which bids fair to rival that over the European invention of movable type. There are protagonists for various theories as to the origin of this method of book decoration.

The legend about Venice being the "foster mother" of gold tooling has been uprooted in a most convincing manner,²⁰ and it is fairly well established that the Venetian bookbinders who were thought to have practiced this art, actually used the Oriental technique of gilding their designs by painting in the blinded impressions, instead of gold-tooling them. The Italians are no longer credited with using the Western technique of working through gold leaf with a hot tool until later, probably not before 1480 at the earliest.²¹ It seems likely that the art of gold tooling "à petits fers" was a Moorish invention, innovated by the leather-workers of Cordova, and that it possibly came to Naples (not Venice) from Spain and later spread over the rest of Western Europe from Italy. It has even been suggested that this art was practiced by the Moors as early as the middle of the thirteenth century.²² However, none of the scholarly authorities on the subject appear willing to commit themselves decisively as to the actual time and place of the invention of gold tooling, though it would seem as though the theory that this art originated in Venice must be added to the other bookbinding myths such as that about Mearne bindings, the identity of Le Gascon, and the Venetian bindings on books bound for Grolier. That it is of Moorish origin appears to be the consensus of opinion.

Gold tooling was not practiced very extensively in Western Europe, except in Italy and France, until the middle of the sixteenth century. Blind stamping continued to be the prevalent mode of book decoration in all the other countries, and the Germans did not take to gold tooling as did the bookbinders in France and England until a later period.

The gold-tooled bindings produced in the sixteenth century and the early part of the seventeenth mark the crest of the craft. The most talented binders of this period commanded large prices for their work and their designs were original, elaborate, and, for the most part, skillfully executed. The French bindings of this period are outstanding examples of richness and beauty, though some of the Italian, English, Scotch and Irish bindings are worthy of great esteem. Spain was not backward in this art of gold tooling, but unfortunately specimens of Spanish gold-tooled bindings are very scarce. Of course Italy has been associated with the new art of book decoration almost since its first appearance in Western Europe.

The method used in tooling book covers with designs in gold as practiced from the fifteenth century on is merely an extension of the process of blind tooling. The design is first drawn or outlined by a disposition of tool forms on a piece of strong thin paper. The size of the book cover is carefully measured, and in making the design these dimensions must be taken into consideration and the pattern worked out in minute detail so that it exactly fits the cover to be tooled. Then the binder selects curved line tools to suit the outlines drawn on the design, assembles his engraved tool forms that compose the design, and proceeds to work out the design with impressions of these tools and curves in dark outline on his paper pattern. The paper on which the design is made is then "tipped," or lightly pasted, in place on the side of the book cover, and the outline of the design is impressed on the leather through the paper by means of heated tools. After this, the paper pattern is removed, the leather is slightly dampened, and the outline is worked over again with heated tools so as to make a clear and crisp impression of the design. This operation is called "blinding-in." After blinding-in, the impressions are carefully painted with a solution of white of egg and vinegar called "glaire." Then a slight amount of almond oil or some other vola-

tile oil is applied over the design by means of a cotton "tampon" so that the gold leaf will lie flat in place when "laid on." Gold leaf is next laid over the whole pattern to be tooled, and finally the various tools and curves are heated and impressed again through the gold in their respective places. Once this is accomplished, the surplus gold is wiped off the surface of the leather, and the outline of the design appears in gold. All straight lines are tooled in the same manner, with a wheellike tool called a fillet or roll, which has a line or lines engraved on it. Both fillets and engraved tool forms are made of metal, usually brass, and are fitted into wooden handles.

The art of gold tooling requires a great deal of skill and can be mastered only after long experience at the workbench. Every piece of leather is an entity in itself and differs from every other leather, so that it takes much practice before a workman is able to determine what heat to use in order to secure a clear, solid outline. If a tool is too hot, the impression is burned in on the leather; if too cool, the gold does not stick. Just the right amount of heat must be used in order to coagulate the albumen in the glaire, for otherwise it does not act as an adhesive agent. Great skill is also needed to be able to "strike" the tools through the layer of gold without doubling the impression.

Morocco leather began to be used extensively for binding books about the time gold tooling appeared in Europe. This leather is the finest of all leathers and the most suitable for elaborately gold-tooled books, just as smooth thick calf and pigskin were suitable for stamped and embossed bindings, and as the skins of stags and does, killed and roughly dressed by the monks themselves, were for the undecorated and rather crudely finished bindings made in the early centuries in the monasteries.

Before the middle of the sixteenth century, after the art of gold tooling began to be practiced, panel bindings, tooled and stamped with gold leaf, made their appearance in Europe. An outstand-

ing example of this type of book decoration is the “pot cassé” binding, designed by Geoffroy Tory. In order to cut the cost of bindings, and probably also to speed up output, covers partly decorated with large panel stamps and partly tooled by hand were supplied to the trade. On some of the small books the entire work was done with a single panel stamp, and many of these little bindings are very attractive. Large center and corner stamps were also used on this type of trade binding, which was often decorated in a rather elegant manner with a design adapted from hand-tooled books of the period. Though originality is lacking in these bindings, many of them display much taste and an honest effort on the part of the trade binders to render an inexpensive binding as attractive as possible. The style is said to have originated in Italy about 1540²³ (see Plate 13).

As learning extended beyond the confines of the monasteries and spread from the clerics to the laymen, European culture developed and produced bibliophiles among the leisure classes. Since a history of famous libraries and noted book collectors is outside the province of this treatise, I cannot dwell upon the subject, though it is tempting to make mention of such libraries as that of King Corvinus of Hungary, who was an ardent patron of bookbinding, who furthered this art and craft greatly by the establishment of a bindery within his own domain, and who imported binders and provided them with every means for developing their craft. Then, too, the libraries created by the Medici are subjects of great interest, especially since the famous Laurentian Library was named after one of this family of book collectors. As for discriminating bibliophiles, they are astonishingly numerous during this period, and such names as Grolier, Maioli, Canevarius, and others, even though they be pseudonyms, are names perpetuated in designating institutions and movements connected with the world of books. The New York Grolier Club is one of the most familiar instances of this practice in America.

Under styles of binding I shall have occasion to refer in more detail to a few great collectors whose names are linked with certain period bindings, as well as to some of the royal patrons and patronesses of the binding art and craft.

During the latter part of the eighteenth century the art in bookbinding deteriorated notably, though the craft of binding attained greater perfection. Very little originality was shown in book decoration after A. M. Padeloup, and from the middle of the eighteenth century until the very end of the nineteenth. I can name no binders who I think showed creative ability of great merit except Roger Payne, and a few binders in France. Excluding the binders decorating their books in the romantic style, they all appear to be adapters and imitators of previous styles of binding, producing bindings decorated too often in bad taste, though tooled with great mechanical skill. The perfectly tooled books of this period suffer greatly in comparison artistically with the masterpieces of design produced on book covers in the sixteenth and seventeenth centuries, when binders created designs devoid of sentimentality, and with impeccable taste. Even though the technique of these bindings was often faulty, they exhibit an inspiration and a creative quality almost entirely lacking in the later period just mentioned.

About the middle of the eighteenth century, the vicious practice of "sawing in" the backs of books became prevalent among hand binders. As to where this method originated, no one seems to have offered conclusive proof, but numerous books appeared without raised bands on their backs, and the style became fashionable, though it had been practiced, particularly in France, before this time.

I refer to this practice as "vicious" because it meant that the actual paper text was sawn into, making cutout grooves along the back of the sections into which the bands were sunk, in order that the book when covered with leather might have a smooth-

surfaced back uninterrupted by raised bands. Along with this practice appeared another equally vicious one, which was that of marbling and sprinkling the sides of books by applying acids to their leather surfaces. Calf was the leather mostly in use for this type of binding, and it lent itself admirably to the "secret" process of producing marbled and other patterns on book covers. The leather covers were considered suitably decorated when bearing marbled patterns, and no other designs were placed on them, but the smooth backs of the books were lavishly tooled in gold. These "full gilt" books had a colored piece of leather set in to receive the title, and they presented a very rich appearance on a bookshelf, but it seems a pity that informed collectors should have countenanced the use of sunken bands and the practice of marbling the leather sides of books, since it must have been apparent to them that by these practices the functional qualities of the bindings were being sacrificed.

At the beginning of the nineteenth century great changes were destined to take place in hand bookbinding because of the development of machines. Although this book is not concerned primarily with machine binding, I shall sketch in a later chapter the process of machine-made edition bindings, or casings, in order to bring out clearly the fundamental differences in the structure of a hand-bound book and a cased book. And now, without dwelling on the history of the edition binding, I should like to refer to its development and point out the influence it had on hand bookbinding.

During the nineteenth century large publishing houses were established all over the Western world. As these large firms put out editions running into thousands, there was necessity for a cheap and serviceable type of binding in which to issue these editions. That sort of binding could not be made by hand after traditional methods because of slowness of production and prohibitive cost. Though for some time the hand binder tried to keep

pace with the new printing machine, by degrees bookbinding machines were developed for this new type of so-called binding, and the hand binder was eventually supplanted by the machine, or edition, binder.

As these changes in binding construction were developing, a change in covering material served to alter the appearance of publisher's bindings. In the year 1821 books covered with cloth began to appear in England. This was indeed a departure from the paper covered publisher's editions then generally in vogue. The credit for originating cloth covered books has been ascribed to Mr. Archibald Leighton, the English binder of the Pickering Classics, but doubt has been cast on this contention.²⁴ Nevertheless, Mr. Leighton was an ingenious and progressive binder, who later introduced the first stamping on cloth bindings.

From this time on, the mechanization of binding, or casing, of books made rapid strides. The French were slow to adopt the new cloth-covered casings and continued for some time to cling to their paper covers, but the American publishers embraced the idea of cloth-covered books with enthusiasm and proceeded soon to flood the market with cloth casings decorated with flamboyant ornamentation that was confused in design and meaningless. Gold stamping on book covers was introduced in England about 1832, with the publication of Lord Byron's *Life and Works* in many volumes. Embossing machines run by power later speeded up the decoration of publishers' bindings and replaced the small hand-operated arming presses which were first used for stamping these books. In fact, at the crossroads of the nineteenth and twentieth centuries the mechanization of bookbinding was in full swing.

One can imagine the abhorrence with which William Morris regarded these machines when he began to turn his attention to book decoration. He who detested speed and who worshiped the hand product revolted against the tide that was tending to drive

man away from the quiet life where the muses had their sway. He rose up in wrath and anathematized the makers of shoddy products. In his wake followed a few craftsmen who strove to revolutionize the standards of the arts and crafts; and thus began a new movement which projected itself into the craft of binding books. It reclaimed the art of hand bookbinding from its declining level and gave it an impetus that it had lacked for at least a century.

Since the turn of the present century great strides have been made in retrieving the publishers' casings from a state of meaningless decoration. No longer can it be said that these book covers are tawdry or that they are for the most part badly constructed. In the first quarter of this century the protective covering of an ordinary book was anything that a shop foreman chose to suggest for it. In other words, there was little art or science in the matter of providing these books with suitable and well-constructed covers. But as printing felt the influence of the back-to-the-mediæval movement, so did binding, and machine-made books actually began to be designed from the title page to the cover, with excellent results.

As for hand binding in this century, the strides made have been neither so long nor so strong as in machine binding, though the sentimental jumble of decorative forms inherited from the Victorian period no longer appears upon our bound books. We have made progress in eliminating a type of so-called "decoration" that was lacking in art, but little progress has been made in creating anything new in book decoration that might be termed original. Some binders in recent years have been attempting to be "modern." They have succeeded in being different, and often pleasingly different, but on the whole they have failed to be creatively different to the extent of evolving a style that merits the distinction of a name like "fanfare" or "pointillé."

This failure is certainly not due to a lack of incentive supplied

by appreciative book collectors who are continually searching for able binders in order to add worthy specimens to their collections. It is due, in my opinion, to a single cause — that of economics. There is a dearth of artists in the craft of binding, since there is not sufficient remuneration to attract artistic individuals to become professional hand binders, and I think this economic factor is responsible for the lack of artist-craftsmen in the binding profession.

The scarcity of artistic craftsmen may be due in part to the fact that so many talented men were eliminated in World War I. At that time France was certainly the mecca of hand bookbinding and had more able binder-craftsmen than any other country. After the war it was shocking to see how thinned the ranks of the binders had become in the Paris ateliers. Almost none of the veteran craftsmen remained, and in the workshops were raw and untrained workmen with scarcely anyone to teach them the craft. The binding craft in France had to be rebuilt almost from the foundation up, and I fear that, after having made a creditable new start, the craft is destined now to suffer again by the loss of much talent.

The economic influence militating against the development of able hand bookbinders I see no possibility of counteracting. The truth is the profession is poorly paid, and adopting it means an economic sacrifice, because it does not permit one to gain an adequate livelihood. It takes at least five to seven years of training at the bench and another two years of art training to enable a man to become a master binder. And when he has finished his professional training he is not able to earn the remuneration suitable for a well-trained artist-craftsman.

The work of binding a book and tooling it by hand with an elaborate design takes even the most efficient craftsman an unbelievable amount of time to perform, and to this must be added the hours of work spent in creating the design and drawing it

with meticulous care. The master binder's work cannot be measured in time, and it is not paid on a remunerative time basis. So it is that the binding craft loses many potentially able and talented men. If this condition continues to prevail, I doubt very much whether the twentieth century will produce more than a few really expert hand binders who have mastered the technique of binding, who show by their work that they have captured the spirit of this mechanical age, and who express that spirit in the creation of truly artistic, original designs on the covers of hand-bound books.

CHAPTER IV

EARLY METHODS OF PRODUCTION AND DISTRIBUTION OF BOOKS

ONE of the most absorbing subjects to the bibliophile is the history of early book production and distribution. It is fascinating to follow the manner of producing manuscripts in the monasteries, then in the universities, and finally, when reading was no longer the special privilege of the cleric or the scholar, to find that book production was taken over by the townspeople and became a real industry.

The Greek classics have not come down to us through the efforts of their authors. These writers were evidently not concerned with preserving their writing for future generations, but were content to have their compositions recited or dramatically presented to their immediate public and to receive the approbation of their fellow citizens and gain the laurel crown as their reward. Only a few copies of the Greek classics were produced during the lifetime of the man who wrote them, and these few were for the most part the property of the Crown or of the state, and seldom belonged to individuals. There was no zealous or systematic effort in book production until it was developed in Alexandria under the Ptolemies, when the classics began to be transcribed and distributed.

Later in Rome, during the Augustan period, Greek manuscripts were imported along with Greek scribes, and the production of books took on great importance. Active trade in books was carried on with other Italian cities, as well as with Spain and Gaul, and even with the distant Roman towns of Britain. It was during this Augustan period that, for the first time, the works of contemporary writers were copied and distributed extensively to a reading public in distant parts of the world. This appears to be the beginning of an efficient system of production and distri-

bution of books. But it was destined not to last for long, for with the fall of the Roman Empire the well-organized book trade came to an end. The wealthy patrons of the publishers disappeared, literary production almost ceased, and the system of transportation broke down so that communication even within the Empire was difficult. Thus it was that the auspicious beginning of the publishing of books as a business was interrupted and failed to be revived systematically until it was taken up by the universities of Bologna and Paris seven centuries later.

Meanwhile, the scribes of the monasteries were rendering a great service in rescuing the classics for posterity. It was through their efforts that these writings were transcribed and preserved. Protected as they were in their fastnesses of quiet during these times of social and political upheaval, they worked assiduously, laboriously copying texts which, though doubtless intended for use in their own times, proved to be for the benefit of future generations. The scriptoria in the Western monasteries were chiefly concerned with copying service books and the Scriptures, and had no interest in the classics. St. Martin of Tours impressed upon the monks the importance of copying the Scriptures, but apparently was not concerned with matters of secular learning. It was Cassiodorus, the scholar-monk, who in the sixth century established the first mediæval scriptorium in the south of Italy and who introduced the practice of copying not only the Scriptures, but works of classical literature, geography, and rhetoric, for he felt that these subjects were not necessarily in discord with Christianity. He emphasized the importance of accurate copying, and in his *Institutiones* prescribed in detail technical practices for the scriptoria. The scriptorium established by Cassiodorus at Viviers became a model for the Benedictine monasteries.

While at first the art of writing was introduced into the monasteries to keep the idle monks busy or to supply religious books for the use of the religious community, it became later an im-

portant and systematized monastic practice, and the most intelligent monks were chosen for the work. On the Continent, the monastic schools of scribes at Tours, Corbie, St. Gall, Fleury, Bobbio, and Corvey were among the most famous at an early date. And in England the scriptoria of St. Albans and St. Augustine of Canterbury, and the Benedictine school at York, were noted for their copyists.

The Benedictines produced more scribes than any of the other religious orders on the Continent, and to these were added scribes brought over from Ireland and England by missionary monks. Cloisters were founded by the Irish monk St. Columban, who came to Gaul and set up religious houses and scriptoria, the one at Bobbio being especially famous. During the first half of the eighth century St. Boniface arrived on the Continent, bringing with him Saxon scribes and founding monasteries in Germany, among them that at Fulda, which became a great German center of learning in mediæval times. The most noted scribe to come to the Continent was the scholarly Benedictine English monk Alquin, who had been master of the cathedral school at York. Charlemagne, seeking to raise the standard of learning, had to search for his teachers among the monks, as it was only in the monasteries that scholarship could be found, and he induced Alquin to come to Tours in 782, putting him in charge of organizing the imperial school there. Alquin also instituted a school in Aachen and, later, one in Milan, which were placed in charge of Benedictine monks. The script developed in these Benedictine scriptoria under Alquin stands out as one of the most beautiful "hands," if not the most beautiful, produced in the history of writing, and its origin was undoubtedly English. It served later as a model for the type-founders of Italy and France.

Some of the theological texts were *palimpsests*, manuscripts copied on vellum sheets taken from texts of Latin classics which had been erased. This practice was evidently due to the scarcity

of vellum. Happily, many of these important erased texts have since been deciphered by photographic processes and by the use of certain chemical reagents, so that they have been reclaimed. The transcribing of all these texts was done in large rooms, or in small individual cells, and sometimes even in the open cloisters, where the monk had little protection from the elements.²⁵ In a former chapter I have given some particulars about the organization of the work in the mediæval scriptoria.

So it is we find that the production of books was entirely in the hands of the monks, with some lay assistance, from the fall of Rome until the thirteenth century. Toward the end of the century the activities in the monastic scriptoria began to decline, first on the Continent and then in England. The demoralization of the monks and the laxity of the monastic life at this time are well known, and because of this, the decline in production of books may be readily understood. At about the same time, with the development of the universities of Paris and Bologna, the demand for textbooks became pressing. Lay scribes were called in and were employed by the universities for manifolding these texts. This soon brought about changes in the control of book production and distribution. It was at this time that the first guild of writers was established. For the previous six or seven hundred years the monks had been the distributors of books as well as the producers of them, though individual wealthy collectors often had their own scribes housed in their palaces to produce the items for their libraries, the texts sometimes being borrowed for the purpose of copying. But the "trade," such as it was, was largely a monastery activity.

The passing of entire control of education from the monasteries to the universities was a gradual process. Even after the universities came into being, the monks continued to exercise control over theological teaching and turned this control to account as members of the staffs in the universities. However, learning

was broadened. Four divisions of university instruction were established — Theology, Philosophy (which included Art), Law, and Medicine. While the monasteries still directed the teaching of theology, and the Church strove to keep under its direction the teaching of philosophy, the branches of law and medicine were entirely free from ecclesiastical influence, and the lay scholars made their influence felt. The fact that the Church was no longer entirely directing matters of education had an important effect not only on learning, but on the making and distributing of books, though for some time after the universities of Bologna and Paris began to employ lay scribes for producing books, the monasteries continued their work of copying texts and aided considerably in the preservation of literature.

The universities of Bologna, Paris, Padua, Oxford, and Cambridge grew out of the ecclesiastical schools already in existence and were not new "foundations," as were the later universities such as Prague. But we are not concerned here with this development, except as it relates to the making and distributing of books. There was no selling of books in the universities at first, in the sense that an individual might buy a book to keep as his personal possession. Books were rented to students and to instructors at rates that were prescribed by university regulation, and they were not allowed to be taken out of the university town. Only the use of books could be bought for the duration of time the purchaser remained in the town, and a heavy fine was imposed for any infraction of this regulation. *Stationarii* were appointed to see that the books recommended for use in connection with various courses were manifolded and made available. In the hands of these *stationarii*, under university regulation, rested all matters pertaining to production and distribution, but originally the output was specialized and merely augmented the production in the monasteries. No general distribution of books was undertaken in the universities during this first period of their existence, though

later it became the practice actually to sell instead of to let out the texts, as was the custom in Paris and Bologna during the thirteenth century and the first part of the fourteenth. The stationarii, who were commissioned first in the University of Bologna, were men who had some scholarly knowledge, and after certain preliminary examinations as to their suitability for this office, they were appointed by representatives of the university.²⁶

Book dealers came into existence in the city of Paris, but they were organized in a guild within the university, and the guild was directly controlled by university authorities. Scribes were working in the Latin Quarter of Paris supplying textbooks for the university as well as literary productions for the scholars of Europe. This book trade included not only scribes, but illuminators, bookbinders, sellers of parchment and later of paper. The trade was encouraged by Charles V, who issued letters patent in 1369 declaring that all dealers and makers of books required for the use of scholars should be exempt from all taxes. This exemption included all members of the book trade, such as bookbinders, illuminators, et cetera, and the encouragement of the production of books by release from paying taxes continued even after books began to be printed. No such policy prevailed in Italy or England.

Although the university exercised the strictest supervision and control over the bookdealers, a monopoly was granted them, and no one but a *librarius*, or a licensed bookdealer, was allowed to engage in the trade in a regular shop or place of business. Penalties for infringement of this law were severe. However, the privilege of trade in the selling of small manuscripts, such as broadsides or single sheets on which a Credo or a Pater was written, was allowed to peddlers, who sold their little written texts from a cart. This privilege was regulated by the value of the manuscript, and the peddler was permitted to sell only manuscripts limited in price to ten sous, which amount, considering the relatively high

price for manuscripts in the Middle Ages, could buy little of commercial value. In spite of the fact that the book trade of Paris was conducted under severe restrictions, it flourished, and in the thirteenth and fourteenth centuries Paris became one of the chief centers of the manuscript trade in Europe. Florence was at that time also established as a great center of the book trade.

In the German universities the work of book production was carried on by *stationarii* in a manner similar to that originating in Bologna, but the importance of their work was not as great as it was in the universities of Italy and France. It has been suggested that the German students were better informed and more industrious than those of other countries and that consequently they did much of their own transcribing. All the Continental universities followed much the same procedure in producing and distributing books at this early time. However, the production of books in the universities did not affect the work of the scribes in the monasteries, where work in the scriptoria continued active for several centuries.

In the English universities the "stationers" were not strictly regulated²⁷ and the book trade in England did not develop in the universities as it did on the Continent. London, instead of the universities, was the center of the trade, and it was there that the bookdealers plied their trade in manuscripts from bookstalls outside of St. Paul's Cathedral. A stationers' guild was formed in 1403, and the first English stationers' guildhall was built near the cathedral. Later, the activities of the London book trade were moved to Paternoster Row, which became the publishing center of England.

In mediæval times manuscripts were usually sold from stalls found in the vicinity of the universities, but on the Continent, as well as in England, bookstalls were frequently clustered about cathedrals and churches or in the open market squares. In time, manuscripts were offered for sale at annual markets and fairs.

During the first half of the fifteenth century many of the manuscripts produced might be classed as works of art, because of the beauty of the script and of the illustrations. Centers for selling these products of the scribes and illuminators were chiefly in the Low Countries and in Germany. They could be found in such towns as Bruges, Ghent, Antwerp, Aix-la-Chapelle, Cologne, Augsburg, Strassburg, Ulm, and Vienna.²⁸ Of all these centers Bruges probably had the most highly developed art, and the dukes in the wealthy domain of Burgundy manifested great interest in art and literature. They were avid collectors of literary productions, and in many instances they maintained staffs of skilled illuminators, scribes, and binders to produce books for their libraries.

Just what effect the guilds of the scribes and the bookbinders had upon the production of books in the Middle Ages is open to question. They certainly served to preserve the integrity of the workman and appear to have protected him to some extent from interference in his work. The restrictions imposed by royal decree on binding could not have had much effect on the art or craft of book decoration, since these restrictions were concerned mostly with matters such as the quantitative limitations of jewels that were permitted to be used in adorning book covers. The number of jewels allowed to be used on a binding was commensurate with the rank of the individual nobleman for whom the binding was to be made. This limitation could not have materially curbed the imagination of the artist who designed the book cover nor have interfered with the work of the craftsmen who executed the technique of the binding.

In mediæval England, as in Greece in the early centuries, literary productions were read aloud to the masses. At a time when reading and writing were not common and when books were rare, the English reciters and minstrels made known to the populace much of the English poetry and other literary productions.

Thus it was that popular literature was passed on to the public, though perhaps not accurately, before printing could record it.

There were undoubtedly trained scribes in England outside of the monastic scriptoria before the advent of printing. The romantic *Canterbury Tales* of Geoffrey Chaucer were copied by the scribes, and Caxton included them among his first publications. Books in manuscript were sold at fairs such as those at Stourbridge, St. Giles (near Cambridge and Oxford), and St. Bartholomew in London, but the manuscript dealers do not appear to have been allowed to carry on their trade within the cathedrals as was the practice in Germany and France.²⁹

In Holland, the "Brothers of the Common Life" made one of their chief occupations the production of books, and they conducted a lively industry in the selling of their manuscripts. Unlike the monastic scribes, this religious order established a book trade expressly for the purpose of supporting the activities of their organization, and they used the profits of this trade in their missionary work. In 1383 Gerhard Groote founded a Brotherhood house in Deventer, Holland, and he was instrumental in establishing other houses, such as the Windesheim Congregation, in the Low Countries and in Germany. The full importance of the work of the foundations of Groote has rarely been stressed in appraising the influence of various sources on the production and distribution of books. But aside from the fact that through these foundations texts were multiplied enormously in the Middle Ages, these brotherhoods initiated and organized commercial manufacture of books in their religious houses. Moreover, instead of issuing their books in Latin, which had been the distinctive language for literary productions, they issued them in the language of the country where they were produced and distributed. This, of course, provoked the opposition of the Church, which relegated to itself the privilege of interpreting for the masses all written documents.

While this progressive brotherhood issued their texts with careful editing, they wasted no expense on decoration and embellishment. These were cheap texts for the people. In keeping with their independent and practical outlook in all matters, they immediately seized upon the advantages of the printing press and utilized this new invention by setting up printing presses in connection with their houses in the Low Countries and in Germany. In addition to the output of these establishments, the production of manuscripts continued active in Germany, especially in the monasteries of St. Peter at Erfurt and of St. Ulrich and Afra in Augsburg, some time after books had begun to be printed.³⁰

The activities of the scribes did not cease immediately after the introduction of printing, but were still carried on in the sixteenth century. Many scholars continued to prefer written texts to printed ones, in spite of their greater cost, and there was evidently a feeling among some scholars that these cheaper books coming from the printing presses were not worthy of being used by the learned.

After movable type was implemented to increase the production of books, and the machine was used to augment the limited output of the scribes, book production took on a distinctly businesslike aspect. There was then need to set up some sort of organized effort to dispose of the products of the printing press. We find that Fust and Schoeffer went to Paris in connection with disposing of their books soon after they were printed and that they kept there a permanent agent.³¹ Schoeffer, together with other printers of his time, maintained traveling agencies for the sale of books, and these firms suggested on their announcements that their agents could be found at certain places. Thus the first evidences of book advertising appeared soon after books began to be multiplied by mechanical methods.

However, owing to the difficulties of transportation and to the dangers of travel in the Middle Ages, it was not a simple matter

to reach a buying public for the sale of books. So it was that the various sacred festivals were utilized as a commercial opportunity for disposing of books. These festivals occurred at regular intervals, and great crowds assembled, as at the earlier festivals of Delos and at the Olympic games, where advantage was taken of the huge gatherings for purposes of trade. The Church turned the mediæval fairs to her profit by exacting payment from merchants for the privilege of selling goods at these festival gatherings. In Rome great license was taken in conducting trade in the precincts of the churches during the feasts of the saints, though in England such desecrations of the church or the churchyard were forbidden during the reign of Edward I. Most of the festivals held in mediæval England and on the Continent were held through grants from the ruling monarchs to the abbots or bishops, and the tolls exacted for the privilege of trade were often considerable. The Germans designated these religious celebrations by the term "Messen," while in Flanders such a festival was called a "Kerk-misse," and in France, a "Kermesse." The Kermess, as it is termed in English, was originally a mass held at the dedication of a church, though it degenerated into a public orgy in time, finally coming under the regulation of the law.

Aside from these religious festivals, there were trade fairs held which the populace, and especially merchants and prospective buyers, were encouraged to attend. Safe-conduct was granted to all people visiting these fairs, and the ruling kings sought to induce the merchants to frequent them by offering them special privileges as a reward for their participation. In Germany the three great fairs were in Frankfort on the Main, in Frankfort on the Oder, and in Leipzig. The greatest of these book fairs was at Leipzig, where the fair continued for three weeks. Until the recent war disrupted trade, the Leipzig fair was held three times yearly, and it attracted merchants from all over the world. The most important Leipzig fairs were those held at Easter and

Michaelmas, which are said to date back as early as 1170. The New Year's fair, which was first established in 1548, is of lesser importance. In mediæval times these Leipzig fairs were held to be so important to the book trade that for fear of encroaching on their attendance no other fairs were allowed to be held in the vicinity so long as the Leipzig fair was in session.

Charles IV, in the fourteenth century, held out inducements to traders visiting the great fair at Frankfort on the Main. In the charter given for this fair, it was specified that during the continuance of the fair and for eighteen consecutive days before and after it "merchants would be exempt from imperial taxation, from arrest, from debts or civil processes of any sort, except such as might arise from the transactions of the market itself." It is evident from the inducements offered the booksellers to attend these book fairs that the rulers of the various countries were interested in furthering an active trade in books. The Frankfort fair is said to have attained great activity as early as 1485.

But it was not alone the booksellers who made excursions to the Frankfort fair. It became a rendezvous of scholars, printers and publishers, booksellers, and purveyors of paper, parchment, and other articles used in the book industry. This fair, in mediæval times, exerted a powerful influence on scholarly endeavor in the literary field. It was not just a book mart where the products of the printing press were sold. It had something of the significance of a club where men interested in books from various angles congregated, discussed, and planned. One can visualize the learned printer-publisher Henri Estienne sitting in conference with Venetian printers and with bookmen and printers from all over the Continent. He might even have chatted with Sir Thomas Wotton who is said to have stopped at the Frankfort fair in 1589 to arrange for the publication of his edition of Aristotle.

Although the Frankfort book fair, held as it was in a com-

mercially important town, was of international importance, the publishers of England, of some of the Scandinavian countries, and of Spain and Portugal were not so well represented there as were the publishers of other European countries. The Leipzig fairs manifested less of the fraternal spirit to be found in the Frankfort fairs. They were more like business institutions, though they have produced a very stimulating influence in the book world. This influence of the Leipzig fairs has been felt through the opportunity offered to view and compare examples of book production on a scale equaled in no other one place.

One of the oldest fairs in France is that of St. Denis, the charter for which was given to the monks by Dagobert, King of the Franks, in A.D. 642 "for the glory of God and the honour of St. Denys at his festival." The ancient fair at Lyons had been celebrated as a book fair up to the end of the sixteenth century. Lyons vied with Leipzig and Frankfort as a mart for carrying on the book trade. In England, it was only after the Norman Conquest that fairs took on any importance. The first grant recorded was that of William the Conqueror to the Bishop of Winchester "for leave to hold an annual free fair at St. Giles hill."

Fairs began to be of less importance to trade when better means of communication developed. In England, they were abolished "because of the evil effect on public morals" — whatever that may mean — and the London fairs were done away with as "public nuisances" after the last fair of the famous St. Bartholomew. Most of the French fairs were swallowed up in the Revolution, but the greatest of all the book fairs, that at Leipzig, continued to be an important event in the book world.

It should be noted that the first German printers of books marketed their own productions, and they reached their buying public through direct contact, and through both resident agents in large towns and traveling salesmen, as well as through fairs. All the Continental printers at that time appear to have followed

this same procedure, but the German printers doubtless had the best organized book trade in the early days of printing, as may be judged by the fact that they issued regular announcements of publications about to be put upon the market and took care to make known where their agents might be found. This custom was not exclusively German, but seems to have been more systematically practiced by the German printers than by those of other nations.³² Toward the close of the fifteenth century, books began to be sold through firms of organized booksellers, and the trade in marketing books gradually went out of the hands of the printers. In other words, at the end of the fifteenth century books were no longer sold direct to the customer by the printer, but were marketed through other business firms.

The achievements of the great printer-publishers of the fifteenth and sixteenth centuries are well known, and while it is not my purpose to discuss the matter in detail, I should like to point out that, in view of the fact that so many of these men were scholars and editors of their own publications, their success as businessmen is all the more phenomenal. It was no simple matter to develop a book trade such as Aldus established in Venice, the Kobergers built up in Nuremburg, and the Elzevirs developed in Leyden and Amsterdam. I am not selecting these particular printers because they are worthy of mention above others, but because they represent the heads of printing and publishing concerns doing business from Italy to the Netherlands under the same conditions of trade. When one considers the restrictions imposed through crude means of communication and the operation of guilds, of monopolies, and of censorship of the Church, the accomplishment of these early printer-publishers looms large in the history of the book trade.

CHAPTER V

BOOKBINDING PRACTICES

ALTHOUGH the basic principles involved in binding a book by hand have not changed all through the centuries from the very beginning up to the present time, practices peculiar to certain countries have served to modify the superficial characteristics of hand-bound books. These practices often merely set a new style in binding and may even have been due to the taste of the collector who ordered the binding. Then, again, they were dictated by practical considerations in handling new materials and in meeting new conditions arising from the changed formats of books. Rarely have they been so revolutionary as to threaten the fundamental structure of bindings. The technique of binding a book and encasing it between covers has been marked by no such national differences as may be found in the decoration of bindings.

Methods of flattening the folded sections of books have ranged from beating them by hand with a heavy hammer (see beating stone, Vol. II, Fig. 49) to compressing them by means of a screw press. The manner of sewing the sections together universally followed that which was used by monastic binders until smooth back books, with sawn-in bands, were introduced by French binders in the seventeenth or eighteenth century, when the sewing thread was merely passed over the "cords." Since that time this less strong method of sewing has continued to be employed by many hand binders throughout the Western world, but "extra" binders have adhered to the ancient practice of sewing their books by wrapping the thread completely around cord or some strong material, as they fasten one section to another.

Leather thongs, flat or twisted strips of vellum, and actual cords were used for holding sections together all through the Middle Ages and continued to be used in the early part of the

Renaissance. Vellum strips were used by hand binders even through the nineteenth century for account books and the like, but cords began to be the favored material for this purpose after the octavo format was made popular by Aldus, the Venetian printer. Cords were then used for both large and small books; the large books being sewn on double cords and the smaller ones on single cords.

These cords represent so-called "bands" after the books are covered. Bands of books have varied in number, as well as in width, but there appears to have been no marked national characteristic in respect to the number and disposition of bands except in Italy, where in the sixteenth century the use of alternate double and single bands was a practice peculiar to that country. Broad or double bands were mostly used in Western Europe in early times, and their number varied generally from three to six or more, with three or four bands predominating on the earlier books and increasing in number on the later ones. They were disposed at more or less regular intervals down the back of the book. Smooth backs, made possible by sewing the sections of books on flat strips of parchment or leather and concealing them, were characteristic of the Maioli, or Mahieu, bindings, and the absence of raised bands may be noted on bindings of the Eve school of binding toward the end of the sixteenth century. The material used for sewing around these cords or flat strips was usually linen thread, though silk thread was used at a later date, and both linen and silk thread continue to be used by hand binders. It was Mr. Cobden-Sanderson who, at the end of the nineteenth century, made silk thread popular for the sewing of books, but happily its popularity has waned, for most books cannot be as firmly sewed with silk thread as with linen.

The sewer in mediæval times made the headbands of a book while sewing the book. The linen sewing thread passed continuously through the sections, around the cords on the back of the

book, and over the headbands at head and tail; without interruption. When the sewing was finished and the book was ready to be laced to its boards the two ends of the headband material were led through grooves on the sides of the boards, were laced through them to the inside at an angle sloping toward the head or tail of the book, and were securely fastened (see Fig. 95, Vol. II). This practice of headbanding was discontinued after mediæval methods gave way to the less crude practices of the Renaissance, and when head and tailbands became a more decorative feature of a hand-bound book. They were then woven onto the back at the head and tail with colored threads, instead of linen thread, after the sewing was completed and were made with a finish which formed a line of beads across the head and tail edges of the book.

The material used for the basis of these headbands varied. It was of cord, round gut, or of narrow pieces of vellum pasted or glued together. The French binders introduced the use of round windings of paper for their headbands. They employed them in tiers of two, a small one on top of a larger one, and introduced what is known as the "tranchille chapiteau." These double rounded strips were wound round with variegated colored silks forming beads across the head and tail edges. They are perhaps the most decorative of all styles of headbands, and they have been copied down to the present day. Double headbands have also been made over glued cord or cello string without a bead finish. These were usually made with linen thread. A very distinctive type of headband is found on bindings of Greek MSS. It is a double-tiered headband which protrudes beyond the line of the book boards (see Plate 35). Though very decorative, it is not practical for books that are to be placed upright on shelves, since the leather covering it would be quickly worn out in removing the book from the shelf.

The use of end papers has been marked by some changes due

mostly to the introduction of new materials. The form of end papers from the time they were first used continued to be simply folded sheets of paper or vellum up to the present century, when Mr. Cockerell introduced an inventive folding of end papers with what he terms a "zigzag," which reduced the strain at the joint of a book where the end paper hinges on to the cover (see *End Papers*, Vol. II).

It was customary in mediæval times to reinforce an end paper over the joint with a piece of vellum or strong paper. This strip was sewed with the book and was pasted down on the board over the joint before the end paper was lined down. The Italian binders left this reinforced material with a jagged edge where it rested on the board, while in France the binders trimmed off the edge neatly. This difference in finish has often been an aid in determining the source of a binding. The practice of reinforcing an end paper in this manner is still continued by hand binders when binding heavy books of reference. The material now used is a piece of strong cambric, and it is sewed with the book by "extra" binders, though "job" binders frequently merely paste it over the joint of the book.

Many of the texts of manuscripts and early printed books were not protected by end papers, and consequently the first and last pages of these texts came directly next to the covers. When any protection was used it was in the form of a vellum flyleaf, or one-half of a sheet of folded vellum, often cut out of some earlier manuscript, was let to fold over the text and the other half was pasted down on the cover board. The technical difference between an end paper and a flyleaf is that an end paper consists of a folded sheet one half of which lies over the text at the beginning and end of a book and the other half is pasted down on the opposite cover board, whereas a flyleaf is a single unfolded sheet that covers the text at the front and back of a book.

In the sixteenth century a combination of vellum and paper

was used for end papers. Some of the Grolier bindings and French bindings of the same period had one vellum end paper and three or four white papers at the beginning and end of the text, but the number and arrangement of end papers in bindings of the sixteenth and seventeenth centuries varied. Frequently a greater number are found in the back of a book than in the front. Variation in number has continued down through the centuries and exists at the present time, though most extra binders show a preference for three leaves preceding and following the text. A fourth leaf of an end-paper section is usually pasted down on the inside of the cover board.

The materials used for end papers also have varied. Marbled papers were introduced into Western Europe and were used as end papers along the end of the sixteenth or beginning of the seventeenth century. Printed block papers, lithograph papers, paste papers, and various decorated papers of different types have all been used for the end papers of books. Vellum, paper, silk, and leather have had their vogue as flyleaves, and doublures of leather, silk, and other materials have been used on cover boards opposite these flyleaves for several centuries. Leather doublures, which were first introduced in France at the time of Le Gascon, are found in his bindings with marbled papers facing them. The origin of decorated papers used in bookbinding will be found in the following chapter under "Materials."

Wooden boards were used for the sides of books throughout Western Europe until after the middle of the fifteenth century, when pasteboard began to be substituted for wood for this purpose. The substitution of thinner boards for the thick cumbersome wooden boards represents a practice in binding that followed logically when books began to be made in a more convenient size, as learning extended their use. Pasteboard was used for book covers in the East long before this time, and appears to have been first fabricated by pasting sheets of paper together. The

mediæval binders, following this method, frequently employed the wastepaper from the early printing establishments to make up their book boards, which practice has often served as a clue to the origin of a binding. No longer, however, are book boards made up by the binders themselves, but are now manufactured for the use of binders out of a pulp with a paper or rope base.

In mediæval times wooden book boards were often beveled where they rested next to the back of a book, and the heavy cords or thongs on which the book was sewed were laced through the boards from the outside and were fastened on the inside by means of a wedge, or the cords were pegged from the outside of the boards. In Greece and the southern Slavic countries grooves were put on the edges of the book boards and this style of grooving boards was copied in Venice, Lyons, and Paris during the sixteenth century on bindings of Greek manuscripts, and occasionally on books printed in Greek. Until the beginning of the fifteenth century the boards were made flush with the text of the book, and then after books began to be placed in an upright position on shelves, the board covers were made to project beyond the leaves of the book.

Originally, books were laid on shelves on their sides, and their leather coverings were protected by metal bosses and metal corners. Titles were written on the fore-edges, which were placed outward, and they were also written on pieces of vellum which were usually fastened above the center bosses on the obverse sides of books, and were covered with horn or some other material. In Germany, during the fifteenth century, titles were not infrequently painted in gold on the sides of books. This custom appears to be peculiar to South German binders.

The usual practice in early times of leaving the backs of books plain and placing the titles on the fore-edges or sides is undoubtedly due to the fact that backs of books were merely glued up by the early binders and were not rounded. They consequently had

a tendency to sink in and did not offer a suitable surface for a title. Books were not rounded and backed until pasteboard began to supplant the use of wooden boards for the sides of books, but while this rounding of backs made a smooth-convex surface on which a title could be placed to advantage, it served to constrict the back and made for a less supple opening of the book. It was not until the second quarter of the sixteenth century that books were lettered on the back, and the practice did not become a universal one until much later. The introduction of this new manner of placing titles on books is attributed to Italian binders.³⁸ Before this time, however, the backs of stamped bindings were sometimes decorated with impressions of tool forms like rosettes, as shown in the Nuremberg type of binding, though the backs of the majority of the early stamped bindings were left plain.

The covers of books were frequently held together with metal clasps. Two clasps placed on the fore-edge were characteristic of books bound in the western part of Europe — in western Germany, France, and England. In Italy, Spain, and the eastern part of Europe four clasps were used; one being added at the head and one at the tail of the binding. Mediæval bindings often had flat strips of brass bound around the edges of the covers, and rings were fastened by rivets through the board edges so that books might be chained. The rings on books bound in Italy were fastened at the tail of the books, those bound in France, Germany, and the Netherlands had their rings attached to the boards at the head, while the English binders riveted rings on the boards at the fore-edges.

Not only did the number of clasps vary in different countries, but the manner of placing clasps varied as well. The English, French, Italian, and Spanish binders usually put the clasp on the upper cover and the catch on the lower one, whereas the binders in Germany and the Netherlands reversed this method, and placed the clasp on the lower and the catch on the upper cover.

Mr. Oldham, in his *Shrewsbury School Library Bindings*, points out that the position of the clasp and catch on a binding constitutes very telling evidence in determining the nationality of a binding.

As early as the fourth century, when book covers were laden with gold and jewels, book-edges are said to have been stained with purple. While the edges of books were at first plainly tinted, the practices of gilding, marbling, gaufering, and painting on book-edges followed, and were used, with variations, in all European countries (see *Decoration of Edges*, Chapter VII).

The leather used for binding purposes was made from the hides of both domestic and wild animals. The hides of oxen, asses, calves, sheep, pigs, and even horses, as well as skins of stags, does, goats, seals and other animals, were all prepared and used for covering books during the Middle Ages. Calfskin was the leather most usually employed for bindings in France, England, and the Netherlands during the fifteenth century; morocco was mostly used in Italy and Spain, and pigskin in Germany. Asses' skins are said to be found almost exclusively on bindings produced in south Germany, Venice and Lombardy,³⁴ while the skins of seals and sharks were frequently used in countries which border the seas in the north of Europe. Calfskin was especially suitable for stamped bindings on account of its smooth pliable surface, and this doubtless explains why the panel-stamped books of the Low Countries, which was the birthplace of this art, are mostly of calfskin. A leather called chevrotain, or cheveril, as it is known in England, was made use of in that country in early times for the covers of books. It was fabricated from the hides of the small guinea deer and, like that made from the skins of does, lambs, and sheep, was very soft and supple.

Practices in the craft of hand bookbinding were for the most part similar in all European countries up to modern times, though, as we have noted, minor innovations made their appear-

ance in the technique of forwarding, and certain materials were more favored by the hand binders in one country than in another. Characteristics peculiar to the various countries will be pointed out in the following chapter with reference to the art and technique of decorating book covers, and there appears to have been greater originality shown in the art than in the craft of binding. Considerable inventiveness of craftsmen is apparent in connection with the mastering of new techniques necessitated, for example, by the introduction of panel stamps, by the change from tooling in blind outline to an outline in gold, or in the inlaying of colored leathers into a tooled design. Each of these inventive practices originated in some particular country, but except perhaps that of gold tooling and a few minor practices expressive of the taste of the binder, they were dictated by necessity and were not the outcome of some imaginative conception. They became universal practices without marked alteration in technique, and very few differences in the manner of forwarding a book serve to indicate the origin of a binding, though the use of particular materials often betrays its source.

After the Middle Ages, the craft of bookbinding was constantly tending toward greater refinements and finish, and the art of book decoration reached its zenith, at least temporarily, before the end of the Renaissance, when both the art and the craft of binding appear to have descended from their lofty planes. This decline seems to have foreshadowed the oncoming of a new period, and may have been entirely due to the social and industrial changes then taking place, for the patrons of bookbinding were not left untouched by these changes.

The nineteenth century might be termed a transition period. Before the end of this period demand for all manufactured articles, including books, was incessant and importunate, inventions were revolutionizing all crafts, transportation and communication services were perfected which served to jolt book-

binders and other craftsmen out of their accustomed placidity, and gave them no pause. The demand was for rapid production, and these men, trained to use their hands to bind books, found themselves pitted against new conditions and efficient machines which were utilized for the purpose of increasing production. Increased production became a necessity if the public demand for books was to be satisfied. As a consequence, the craft of binding developed a new technique — that of “casing” a book by machine.

And thus it was that hand binders were faced with a sort of competition that was new to them, and that took away from them a monopoly in the field of bookbinding that they had held undisputed for so many centuries. The stormy petrel of ill omen to hand bookbinders was speed, and the slow method of binding a book by hand was seriously challenged for the first time.

Before the end of the nineteenth century the craft of binding began to be carried on in binderies specializing in different methods of performing the operations of fastening the sections of texts together, putting them into covers, and decorating them. Bookbinding establishments were classified into what are known as “extra” binderies, “job” binderies, and “commercial” binderies, depending upon the methods used in the work. From this time on the extra binders’ work has been almost entirely confined to the binding and rebinding of single books demanding special treatment and originally designed covers. The job binders take on books in large quantities which they bind or rebind in quantity lots, and the so-called commercial binders do not “bind” books in the technical sense of the word, but “case” them. The “casing” of the commercial binder serves as a temporary protection to the text of a book, whereas the “binding” of the extra and job binder is so constructed that it performs the function of protecting a text with a degree of permanency limited only by abuse and the quality of materials used in the work.

The work of the modern extra binder is done entirely by hand, except in the matter of cutting and pressing, for which he employs cutting and pressing machines, and his practices conform closely to those which have come down to him from mediæval binders. The various processes of hand binding are explained in Vol. II. The extra binder's shop is a one- or two-man shop with the possible addition of a woman for mending and sewing books. The numerous operations of binding a book by hand fall under the two main classifications of "forwarding" and "finishing," and the workmen who perform these two different kinds of work are called "forwarders" and "finishers." The forwarder constructs the binding, and the finisher titles and decorates it. In "one-man" extra binderies the same individual is both forwarder and finisher, and he often sews his books.

The job binder does most of his work by hand, though he uses some laborsaving devices and some short cuts in method. Each "job" is made up of assorted sizes of books, instead of one individual book, as is the case with the extra binder. Some books he cases, and others he binds, using a technique similar to that of the extra binder. His prices are moderate, and he spends no time on special design in decorating his bindings, but uses a stereotyped decoration that is usually pleasing in effect. In these days of specialization, the forwarder of a book in a job bindery is not usually the finisher. In fact, in the very large job binderies even the processes of forwarding and finishing are divided into several branches. For example, one man does nothing but pare leather, another confines his activities to covering or to backing a book, and a woman does the folding, mending, and sewing. (The only jobs for which women are ever employed in unionized binderies.) Likewise in the department of finishing, one workman will do nothing but titling, while another does the designing for the decoration on the book, and still another does the tooling of the designs. Thus there are nearly as many special workmen in a

large job bindery as there are operations, the book passing from one workman to another in its successive stages. It can be readily understood that when this method of binding is used, the processes have a tendency to become mechanical, and even if a master craftsman has planned the binding, the finished product invariably lacks the master workmanship that characterizes a binding planned and executed by the same individual.

The third classification of binderies which is usually designated as a "commercial" bindery should, it seems to me, more logically be termed an "edition" bindery or a "machine" bindery, since all the work produced in this type of bindery is done by machinery on publishers' editions. "Commercial" bindery is certainly a misnomer, for a job bindery or an extra bindery is quite as much a commercial bindery as any other bindery.

The processes of machine binding are quite different from those employed in binding a book by hand, and I will describe briefly the stages through which a book is taken in a machine bindery and will point out the main structural differences between a casing and a hand-bound book.

Books coming to the machine binder are publishers' editions. They arrive in sheets direct from the printer. Each sheet represents a "section," or "signature," and the first operation is that of folding. Large power folding machines are used for this purpose, and the folding operator takes some time before he is able to "set" his machine accurately for the job in hand. The edition which he is about to fold runs into thousands of books, all printed exactly alike, and one "setting" of this folding machine suffices to fold this large edition mechanically perfect. The machine is so set that each sheet passing through it will be folded into a complete section like every other sheet, with the "register" in truth. (The pages of a book are said to be "registered in truth" when the line of printing and page number on one page come exactly over the line of printing and page number on each following page.)

These folding machines, run by power, are superhuman in performance. After the operator has adjusted the machine for the particular job he is about to perform, he presses a button and the machine is set in motion, working with lightning rapidity and folding one section after another in perfect register. The sheets are fed automatically from a large pile placed on the top of the machine. Through an electrical device, they are separated one from another and are delivered to the mechanism of the folder, coming out in perfectly folded sections at an astounding rate of speed (hundreds of sections per hour).

After having been folded, the sections are "gathered," or brought together in proper sequence, by another machine. They are turned out of the gathering machine as so many complete texts, and are then sent on to a smashing machine where each book is compressed in thickness and is made solid by this power-driven monster that prepares it for the next operation of sewing.

A book sewing machine is a fascinating machine to operate and to see in operation. Usually women are employed for this purpose. After receiving the folded and gathered edition, the operator sets her machine and then begins running the books through it. There are three or four large spools of thread resting on top of the machine, and needles and "loopers" are held in place below the thread, which is fed to each section as it is brought up on top of an iron "saddle" to a position directly under the line of needles and loopers. This operation is performed by putting out a clutch with the foot, exactly as one puts out a clutch in a motorcar for the purpose of meshing the gears. As the section is brought up in this manner, it is pierced with the needles and "looped," or fastened, to each succeeding section in three or four places along the back or fold. In machine sewing, the thread runs perpendicularly through the folds of the sections, whereas in hand sewing it runs vertically, or along the length of the sec-

tions. This accounts for the sewing pattern to which I will refer later.

These sewing machines operate with great speed, and consequently much spoilage ensues, even with careful and skilled operators. This matter of spoilage is of considerable importance when books which have been printed on expensive hand-made paper are being sewed, and when I once ran a small machine bindery where I planned and superintended the casing of limited editions of specially designed books, I experimented with a sewing machine in order to solve the problem of reducing spoilage. With the aid of a master mechanic I had the machine rearranged by changing over the "pulleys" which control the speed, so as to slow down the tempo in operation materially. The result was that spoilage was reduced to a minimum, and we were able to turn out these limited editions with a great saving of expense. This goes to show that machines are sometimes hindered by speed from delivering their best performance and that there is a limit to which a machine may be speeded up in the interest of both technical accuracy and material profit.

The book having been sewn, it goes to the workbench where a folded sheet of paper is pasted on to the first and last sections to form "end papers." Then it has its edges trimmed in a cutting machine and is sent to the "gilder" to have its "head" gilded. The head of a book is the topmost part of the book when it is standing as on a shelf, with the title correctly placed. The "tail" of a book is the end opposite to the head, and the "fore-edge" is the edge opposite to the backbone, or spine, of a book.

Books are usually sent out to a gilder to have their edges gilded. Gilders do nothing but edge gilding, and sometimes when there are large jobs to be done they come into a machine bindery and do the edge gilding on the spot.

After being edge-gilt, books are glued up along the back (this gluing is sometimes done before gilding) and a strip of meshed

cotton material called "super" is glued over their backs. The super extends about three-quarters of an inch over each side of the back and forms a reinforcement at the joint of the book. The term "joint" is self-explanatory, as it represents the space along the back of the text where the book joins the cover boards.

Some cased books are left with flat backs, and others have rounded backs. If the back is to be rounded, the book is put through a backing machine before being lined up with super. The groove produced by this operation is slightly different from that for a flat-backed casing. When a book is rounded and backed, a groove, which is of a depth sufficient to receive the thickness of the cover boards, is formed along the back of the text, and the end papers with reinforced super serve as the hinges in this joint.

When headbands are specified, they are glued on at head and tail. These are machine-made pieces of fabric with a beaded finish that are glued across the back of the book at head and tail. They extend beyond the length of the text so as to fill up the space that would otherwise be left between the head and tail book-edges and the ends of the bookboards which protrude beyond the text. Then a piece of strong paper is glued along the length of the back of the book to strengthen it and to make it more even. Now the book is ready for its cover.

The covers, or casings, are machine made. The boards are cut for them in large rotary cutters, and the covering cloth is cut by machine. Full cloth casings are made in a case-making machine, which is amazing to watch when in operation. It receives the cut boards and cloth and automatically glues them in place, transforming them into a cover, or finished casing, for the book. When casings are made with paper sides, they cannot be made by machine, but must be "bench made" — that is, covered by hand.

The casings when finished are sent to a stamping or blocking machine, where the spaces for the titles and decoration are sized and "laid" with gold leaf by hand. They are then placed in a

stamping machine, one by one, to have the titles and decoration stamped on their surfaces.

Once these casings are finished, they go again to the workbench or to the casing-in machine, and the completed gatherings are pasted into them. This process is called "casing-in." It merely consists in pasting the end papers at the front and back of the book down onto the inside of the cover boards and then putting the cased book into a large standing press, leaving it under heavy pressure until the end papers have dried thoroughly. Thus it may be noted that the cover of a cased book is held on solely by means of paste, and is not bound on by cords, as in hand binding.

This is the product of the machine bindery where large editions are cased. Machine casing represents a method suitable only for quantity production, and the large machines employed could not be advantageously used for casing a batch of books differing in size, or even for casing a small number of books of identical size and format, as the setting of the various machines requires too great an amount of time.

Well-made cased books sewed by machine resemble very closely hand-bound books, especially if they have leather backs. In order to distinguish a book bound by hand from a machine-made book, one should first look along the outside cover where it joins the back. If the book is bound by hand, there is likely to be, opposite the usual five bands on the spine or backbone of the book, a slight indication of the cords which are laced into the boards. Even if there are no raised bands on the spine, these lacings are generally recognizable, though in overrefined binding, whether with or without raised bands, the lacings may be difficult to detect. But one may be quite sure whether or not a book is bound by hand by consulting the sewing along the center fold of each section. The hand binding will show a sewing thread running continuously from the first needle hole to the last one, only interrupted where the section is pierced for the thread to go

through to the back of the section, whereas, the cased book will show a different pattern of sewing. The thread will not run continuously, but will be interrupted by from two to four empty spaces. This type of interrupted thread pattern identifies the book as being machine sewed, and a casing job is almost certainly indicated. I say "almost certainly," because occasionally a hand binder sews a book by hand and then puts it into a handmade casing, but these instances are rare.

Like the word "format," "binding" has almost lost its original meaning. It has become a generic term, and no distinction is usually made by the layman between bound books and cased books. This general use of the term "binding" is probably a survival from early times, when all books were bound. Unless the cover boards of a book are laced onto the back of the book with the ends of the cords over which the sections are sewed together, the book is not a bound book. The usual publishers' editions with cloth covers appearing in all our bookshops are examples of cased books.

Cased books open more freely than bound books, since their sections are merely stitched together, their backs are not moulded into a solid convex surface with a deep joint projecting on each side, and their covers are not laced tightly onto them.

When books were first printed in Western Europe, a very superior quality of paper was used for the text. It was a rather thin handmade paper, manufactured out of rag stock and unladen with clay or other heavy filler material. In consequence it had great suppleness. The mediæval books were issued mostly in folio or quarto format. In the folio book each sheet of paper was folded once, with the grain of the paper running with the fold. A single section, or signature, was usually composed of two folded sheets, one inserted into the other, making a total of eight pages. Today most of our books are printed on machine-made paper, frequently of inferior, clay-filled stock. The paper is often heavy

and stiffened with sizing, and the sheets are many times the size of the early rag paper sheets. They are folded at least three times, often against the grain, making sections of sixteen pages or more. As a result, the sections are thick and stiff and a book issued with its sections made up in this way presents a problem to the hand binder, because it is extremely difficult, and frequently impossible, to bind such a book and ensure its free opening. Hollow backs and other expedients are not a solution.

I am well aware of the fact that the publisher often cannot afford to issue books in a format suitable to the quality and thickness of the paper available for use. The increase in cost would frequently be prohibitive. But I think he could exercise more judgment in selecting his paper for a given project. To change the usual octavo format of a book would involve considerable expense in the manufacturing cost both in printing and in binding, and I am not condemning the publisher for seeking to make a fair profit. I wish merely to support my contention that a book with a faulty format cannot be hand bound and still open freely. When flexibility is desired, certain books should not be bound, but should be cased in a strongly and carefully made casing, which will admit of a free opening of the book. The life of such a cased book, considerately handled, will doubtless last as long as the leather now available for use by the hand binder.

Toward the end of the eighteenth century, when hand binding suffered a decline in craftsmanship, hollow backs came into constant use, leather covers were pared very thin, sections were "sawn in," false bands were resorted to, and for the sake of "finish," slips, or frayed band cords, were pared down to such a degree that their strength was greatly impaired. All these pseudo methods were introduced under the guise of refinements, and consequently soundness of construction was sacrificed. The dignified craft of binding was at a low ebb for a time.

It was during this period that sprinkled, marbled, and tree

calf came into vogue. Happily this practice is no longer in style, though even now one is sometimes asked to admire a tree calf binding, the proud owner not realizing that the treelike pattern formed on its polished sides was produced by treating the calf with a bath of acid.

At the end of the nineteenth century, with the revival of hand-work, the craft of binding improved along with the other handicrafts. There was a return to what is called the "mediæval spirit" among craftsmen, and the craze for novelty subsided. In England, William Morris led and inspired a small group of craftsmen to seek higher standards of workmanship. These men sought also to improve the quality of materials used in the crafts. Under the Morris influence great stress was put upon both utility and beauty. Morris, who felt that "life was uglier every day," sought to create beauty and durability in the things he designed and made, and he cried out against speed, which he felt was responsible for so much ugliness. He stressed balance and appropriateness in design and discouraged competitive production. I think he might be considered to have been the archenemy of the modern machine. This same attitude was characteristic of all the Pre-Raphaelites, to which group Morris belonged. Among this little coterie of men was Mr. T. J. Cobden-Sanderson, who gave up the legal profession, for which he was trained, and became a printer and a hand bookbinder. It was he who brought fresh impetus to the craft of binding, retrieving it from many vicious practices in construction and leading the way to greater simplicity and taste in design.

The influence of these men still lingers with craftsmen, and the sound mediæval practices which were revived in bookbinding by Mr. Cobden-Sanderson have become the standard practices of the extra binder of today. The machines which invaded the field of bookbinding have not destroyed the old craft, but have developed a new one. While the machines turn out cased

books for transient use, hand binders are producing bindings for the shelves of scholars and collectors. Each of these distinctly different techniques has found its niche, and there is no longer any attempt by the hand binder to compete with the machine. He is supreme in his own field, and at the present time, at least, he has nothing to fear from the machine.

CHAPTER VI

NATIONAL STYLES OF BOOK DECORATION

*The Near East, Italy, Spain, France, England, Scotland, Ireland,
Low Countries, Germany, Hungary, Poland, Scandinavia,
North America*

IDENTIFYING a binder's work and tracing a style of binding to its source are matters of arduous study. Even when bindings are signed, it is a task to identify the craftsmen who did the work, as initials and names mean little in themselves. A name found on a binding might refer to the owner or to the bookseller, and does not necessarily indicate the workman who bound the book. When bindings are not signed, as is too often the case, the investigator must depend upon circumstantial evidence and must build up this evidence by tireless comparisons and constant research before he can establish a well-founded opinion concerning the origin of a binding.

As for classifying bindings and determining in what country the style of decoration originated or where some sort of technique was first practiced, only long and wide familiarity with specimens of the craft and scholarly investigation of every minor characteristic of the specimen under consideration will make possible an authoritative conclusion. In order to establish the origin of a binding and connect it with some particular town the matter of research becomes more and more complicated, for binders in widely separated towns in the same country are known to have used stamps almost identical in design, and we have already observed that on bindings produced in Germany during the fifteenth century are found impressions of stamps hardly distinguishable from those used in England in the twelfth century.

These facts are confusing to one setting out to establish the source of a binding, and the work of the binding specialist is

often further complicated by other conditions that tend to obscure the facts. As we know, Europe was overrun with wars for centuries, and during the Middle Ages, after invaders failed in their conquests and had been driven out of a country, there would be left some of their number who had been professional artists or craftsmen in their native land and who continued to practice their professions in their adopted country. Many of these foreigners, after being freed as prisoners, were kept as slaves and were made to practice their crafts for their masters' benefit. Slaves were also imported into countries and they brought with them a knowledge of some foreign art or craft which was promptly utilized. Owing to all these confusing data, which render identification so difficult, even experts often fail to agree upon the source of certain technical characteristics of a binding or upon the origin of particular styles of decoration.

As an example of the danger of coming to a conclusion regarding the origin of a binding without exhaustive study and comparisons covering a very wide field, I would point to the recently upset theories about Grolier, Canevari, and Maioli bindings. That scholarly authorities should have left unchallenged the opinions of Guglielmo Libri, the alleged forger, for so long a time is unbelievable. Libri evidently attached celebrated names to bindings without thorough research and he built up a romance about them in his auction catalogues, surrounding them with a glamour that was fictitious. His statements were generally accepted at face value by collectors and book specialists for many years. Though Libri undoubtedly possessed much knowledge about the art of binding, he appears often to have substituted imagination for research, and in view of the revelations as to his lack of integrity, it seems probable that his misstatements were not wholly accidental.³⁵

In this chapter I propose to discuss styles of binding under na-

tional characteristics rather than in chronological order, though I am aware of the fact that European national boundary lines were not stationary and that what constituted France or the Netherlands or some other country at one time often did not represent the domains of these nations at another time. However, since I am not attempting more than a very general classification of styles of binding, and though I realize that frontiers continued to be changed and Continental Europe did not assume anything like its present national divisions until after the Congress of Vienna (1815), I am designating countries as we conceive of them today, in the belief that this will be most helpful to the layman in gaining a rough idea of binding styles, and I trust that geographical changes in the past will not confuse the subject. I have already outlined the general development of the book through successive centuries, and now by identifying styles of book decoration with their countries of origin I hope to give the reader a fairly clear picture of the contribution to the art of binding by each individual country and to render it possible for him to piece together the mosaic of successive periods without losing sight of the influences which affected the decoration of books.

Civilization and culture traveled from the East to the West and the East had a developed art when the West was still too occupied with surviving to have the leisure for cultural pursuits. As the Eastern art gradually infiltrated into the West, it stamped its imprint on almost all forms of art created in Western countries. So it is that in the European art of book decoration we frequently find traces of Eastern influence. This influence on Western European bookbinding has been too little emphasized. It is usually referred to in general terms without specifically stating that certain forms of decoration were taken over in detail from Eastern art. We read of adapting Persian figures or arranging designs in the Oriental manner, but seldom are we told that this or that

motif was virtually copied from some Eastern design, or that an Oriental workman was actually the artist who created the design.

EASTERN BINDINGS

Islamic bookbinding has been little written about, and I do not propose to attempt even a cursory survey of the Islamic art and craft of binding, but I should like to emphasize that there are certain unmistakable forms of Islamic design that found their way into Western Europe book decoration and that this influence lent variety to European tool forms and served to influence creative design.

The fancifully decorated lacquered Persian bindings with their graphically drawn animal forms have no counterpart in Western bindings, but we find geometrical designs on the fifteenth century Italian and French decorated books, knotted borders and patterns, oval center medallions and arabesques, all very suggestive of Islamic influence (see Plate 14); and the French trade bindings with center panels and decorated corners, to which I have previously referred, are very like some Egyptian bindings of about the same period. The custom of using triangular-shaped flaps hinged to the cover to protect the book, which was a distinguishing feature of Islamic bindings, was rarely adopted in Western Europe. These flaps were elaborately decorated in the style used on the exterior of the binding (see Plate 15).

ITALY

As Italy was quick to take up the making of paper and adopt printing as a method of multiplying texts of books soon after their introduction into Europe, so was she ardent in her efforts to produce decorated bookbindings at an early period. If we accept the theory that Grolier, Maioli, and Canevari bindings were not for the most part the work of Italian binders, as seems now well authenticated, we rob Italy of considerable glamour in the

world of binding. However, Italy has made a notable contribution to the binding of books, though her binders have produced fewer original styles than we have been led to suppose and she has been far less creative in the art of book decoration than in painting or sculpture. But her bindings have a certain intriguing quality that is characteristic of most Italian handmade things and they often exhibit a deftness without cohesion and a charm without the unexpected.

The monastic bindings produced in Italy are still numerous, but they are usually undecorated and are lacking in interest. The large Italian libraries are stacked full of these monotonously bound books. Some are in full vellum covers, others are in unpolished half leather bindings of sheepskin or doeskin, encased between beech boards; and a very few are decorated full leather bindings. Toward the end of the fifteenth century a distinctive style of binding attributed to Florentine binders appeared in Italy. It may be found on books bearing a blind-tooled panel and border design in which an interlaced cable pattern is used, with the introduction of small roundels filled with a sort of gesso mixed with varnish. An excellent reproduction of this type of binding is represented in Fletcher's *Foreign Bookbinding in the British Museum*, Plate VIII. The cable pattern was of course borrowed from the East, but the Italians adapted the Eastern motifs in a distinctive manner. We find this exemplified in the Venetian bindings decorated with Saracenic rope patterns which were sprinkled with small gold circles. This was an innovation in decoration which produced a transition type of binding, linking the blind- with the gold-tooled design (see Plate 16).

Extant examples of panel-stamped bindings of Italian origin, similar to those produced in Northern Europe, are rare. One reason that has been assigned for this is that calf leather, on which these panels were most successfully stamped, was not generally available in Italy at this time. Calf was cheaper and more plenti-

ful in the north, whereas morocco was doubtless cheaper and more easily obtainable in the south.³⁶

Before discussing Italian gold-tooled bindings I must refer to the origin of the Grolier, Maioli, and Canevari bindings. For generations the opinion has been generally held and disseminated by distinguished authorities on binding that a great many of the books in these collections were bound in Venice on the order of these noted bibliophiles. But this contention has been attacked in recent years, and much scholarly investigation, centering principally on the Grolier bindings, has served to demolish this long-held theory.

Jean Grolier, the distinguished collector, was descended from the Italian Groliers, originally from Verona, who came to France and settled at Lyons during the early part of the thirteenth century. Grolier was born at Lyons in 1479. For many years he spent much time in Italy in the capacity of Civil Servant for the French Government. He has been regarded as one of the most eminent bibliophiles of all time and is believed to have numbered among his friends Aldus the Venetian printer, Erasmus the scholar, Geoffroy Tory the artist, and many other men celebrated for their learning and artistic achievements. Until recently it was thought that the books bearing Grolier's name and motto were bound for him in Venice under his personal supervision and that the books which he accumulated after about 1540 were bound for him in France. But the origin of his bindings and the length of his sojourn in Italy became moot points after Dr. Gottlieb cast doubt on the previously held theories on the subject.³⁷ Since then, scholars have been extending their researches and have come to the conclusion that all the Grolier bindings with simple interlacings and solid tools, bearing his name and *ET AMICORUM*, were bound in France, probably Paris, not much earlier than 1535.³⁸ Furthermore, it is contended that these bindings were not executed by workmen

brought by Grolier from Italy, but represent the work of French binders.

That there were two main types of bindings owned by Grolier which were supposed to have been of Italian origin must not be lost sight of. Those belonging to one classification have his name and motto on the covers, and those without the name and motto fall into another category. The first-mentioned group are those which have now been identified as the work of French binders, and are thought to be not earlier than 1530-1535. The second group, among which are the "plaquette" bindings, have been attributed to Italian binders working in the early part of the sixteenth century, and are believed to have been ordered by Grolier before he conceived the idea of having his name and motto tooled on his bindings. Former binding specialists, basing their conclusions on Libri and Le Roux de Lincy, seem to have been quite wrong, for they all believed the books stamped with Grolier's name to have been of Italian workmanship.³⁹ They furthermore held that the early Grolier bindings without distinctive marks were bought by him in Italy already bound, though the more recent investigators find this theory untenable and believe that Grolier probably ordered these bindings made for him, as well as most of his later ones.

Thus in the light of critical analysis we must reconstruct our ideas about the origin of the Grolier bindings and must deny Italy the prestige she has so long held in the world of bookbinding for having produced such matchless specimens of binding for Grolier. At the same time, there must be added to the already great fame of French artists and craftsmen the distinction of being the creators of these bindings for their illustrious bibliophile.

Among other evidence that served to establish the fact that certain Grolier bindings were of French origin was that found in the strips of parchment containing French handwriting on which one of these books was sewn, and in the French waste

used to line the back of another book. The opportunity to examine books so critically is not often afforded the book collector, as it means either tearing a binding apart or finding a specimen already partly demolished, but there are certain surface characteristics of books that offer distinguishing indications of the origin of bindings, and collectors will find them helpful in appraising the authenticity of some dealer's claim. Among them are the kind of leather used and the character of the bands appearing on the back of a book.

The kind of leather used on the Grolier bindings proved to be a telling point in establishing their origin, for during the period in which the Grolier bindings were produced the French binders covered their books in smooth calf and the Italian binders used a fine-grained morocco leather. Hence these calf bindings of Grolier's seem to point to the workshops of the French binders. This matter of leather should always be one of the first things to observe in a binding when attempting to identify it, for, as in this case, it might be quite conclusive evidence. Different kinds of leather may be characteristic of bindings produced in certain countries, and individual binders in the same country have a tendency to use distinctive leathers.

The other surface feature helpful in the identification of bindings, which is found on the backs of books, is not so distinctive always as is the kind of leather used, though both physical and decorative characteristics of backs often assist in building up evidence.

A third surface indication of the source of a binding, that of decorative style, is fraught with difficulties, owing to the fact that styles of decoration were so frequently imitated. French bindings were often imitated in Italy, and Italian bindings in France. Likewise, French bindings were imitated rather freely in other countries, especially in England and the Low Countries during the time when the Le Gascon style of decoration was at its height.

However, most tooling can be distinguished from the French, regardless of the design, owing to the inimitable French technique.

The earliest gold tooling in Italy is thought to have come from the binderies of the Neapolitan workmen about 1480. Until then the Italian binders were gilding their designs after the Oriental fashion and not gold-tooling them. Oriental bookbinders are known to have been working in Venice during this period and the Italians continued the Oriental technique of polychrome decoration of books well into the sixteenth century, even though the Oriental workmen in Italy appear to have practiced the Western art of gold tooling as early as the last part of the fifteenth century. That many foreign binders were working in Italy in the fifteenth century is quite certain. Saracenic workmen from Sicily, Greek and Oriental workmen, a few French binders, and, later, German and Netherlandish printers and booksellers who came to Italy and settled there, all introduced different styles of ornamentation which appeared on Italian bindings.⁴⁰

Mr. Fumagalli, the well-known bibliographer, has written a monograph on the bindings at the Court of the Este at Ferrara and Modena (see *Selected List of Books*), in which he gives a description of the Este bindings and mentions several of the Este binders. He describes the books bound in leather, silk and damask, and it has been pointed out that on one of the bindings, bound by a Ferrarese binder, appears a leaf exactly like that always attributed especially to the bindery of Aldus Manutius,⁴¹ which, as I have already mentioned, Goldschmidt believes never to have existed.

Though Aldus may not have had a bindery in Venice, there is abundant evidence pointing to the fact that much beautiful work was done in Venetian binderies (see Plate 17). The Ducali in the Museo Civico Correr in Venice are among the finest examples of Venetian bindings, exhibiting a combination of Oriental and Western techniques in decoration. These Ducali bindings ac-

quired their name from the fact that they covered manuscripts on which were written the decrees of the Doges. They were written on vellum and were elaborately illuminated and beautifully bound, often with the Lion of St. Mark on their covers.⁴²

A style of binding originating in Italy about the end of the fifteenth century is the so-called cameo binding. This style spread to France and England, but has not been identified with Germany. These bindings were first produced in northern Italy, dating between 1490 and 1530, and they are known also as "plaquette bindings." I quote in part an elucidation of plaquettes appended to the British Museum collection: "Plaquettes are small metal tablets in relief, usually produced by casting in a mould from a wax model. The finest plaquettes are of the Italian school of the end of the fifteenth and beginning of the sixteenth centuries. Some of them reproduce motives by the famous sculptor Donatello though none can be attributed to his hand. Briosco of Padua called Riccio (1470-1532) is however, well represented in the art. Two of the most charming plaquette modellers are Fra Antonio da Brescia and the artist who signs I.O.F.F. The non-Italian schools are of less artistic importance, though mention should be made of Peter Flötner of Nuremberg (died 1546)."

These cameo, or plaquette, bindings have a center medallion stamped with an intaglio-cut die producing an embossed design, the background of which is painted in gold and colors. The earlier plaquette bindings were stamped with dies copied from antique cameos. Later, plaquettes portraying mythological and allegorical scenes were used on bindings (see Plate 18), and we also find plaquettes especially designed for bibliophiles, which appear on their books as emblems indicating their ownership. One of the most famous of these emblematic plaquettes is that representing Apollo driving his chariot over the waves toward Pegasus standing on a rock in the sea (see Plate 19). The medallion is surrounded by a Greek inscription. Bindings bearing this

Apollo plaquette have long been associated with Demetrio Canevari (born 1559), a physician and book collector who was appointed chief physician to Pope Urban VII. Hobson, who calls these bindings the "masterless bindings," has now identified them as the work of Roman binders, and he has also established the fact that the original owner was Pier Luigi Farnese, and not Canevari. The identity of this Pier Luigi and a sketch of his life will be found in Hobson's book on Canevari⁴³ (see Plate 20).

The Roman binder who is thought to have made the "masterless bindings" worked for several popes, Pier Luigi, Filareto, and a number of cardinals, though almost all the bindings attributed to this binder have heretofore been described in book catalogues as "Venetian bindings." A very beautiful example of a Farnese binding and one bound in similar style for Apollonio Filareto, his confidential secretary, are given in Goldschmidt's *Gothic & Renaissance Bookbinding*, Vol. II, Nos. 204 and 205.

In the early Renaissance many beautiful bindings were produced in Italy. The tools used were gracefully and originally designed and are expressive of a new spirit in book decoration (see Plate 21).

Bookbinding in Italy after the seventeenth century, like that in other countries, suffered a decline; but to this day it has a certain appeal to the uninitiated. The Italian binders have a knack for turning out trim-looking bindings lavishly decorated with gold at an amazingly cheap price. However, present-day Italian binding is not taken seriously by professional binders or collectors. The Italian tooling is not done in the manner of the French "à petits fers." It is surface tooling with engraved fillets, and now that calf is easily procurable in Italy, the Italian binders have become master makers of boxes and portfolios in highly polished calf, fashioned with extraordinary skill, but they no longer produce decorated hand-bound books comparable to those produced in Italy in the fifteenth and sixteenth centuries.

SPAIN

The study of Spanish bindings seems to have been neglected by most authorities writing on the subject of bookbinding. The turbulent history of Spain makes it difficult to follow the development of book production in that country and to differentiate between the purely native bindings and those executed by foreigners whose work shows the influence of the craft of the country from which they emigrated.

There are only a few specimens of artistically decorated Spanish bindings predating the twelfth century. This may be due to the destruction wrought by the early invaders of this country, for it is thought that a greater number of these early bindings probably existed. Two single book covers of this rarely represented period are now in the Metropolitan Museum of New York. They are undoubtedly from Gospel books, and each consists of a wooden board overlaid with silver gilt and with ivory figures in a central panel. They are both studded with cabochon jewels and pieces of enamel, and date from the second half of the eleventh century (see Plates 22, 23).

Beginning with the twelfth century, the Spanish binders bound books with uncovered wooden boards. There are examples extant of these bindings with the covers carved in high relief. Then we find books of this period with wooden board sides overlaid with silver and gilt plating, frequently adorned with gems. Large decorated center panels with surrounding borders characterize this type of binding. These Gospel and missal books, written on vellum, have bindings of rare beauty and originality in design. Like the other European metal and jeweled bindings, they are for the most part creations of the metalworker, possibly in conjunction with some independent artist. Also, in this century books were bound in Spain in full leather and were decorated with blind designs in the monastic or

Gothic style and under the French influence. This decoration was done by hand with blunt tools and stamps.

Their *mudéjar* bindings, showing the Arab influence, were characterized by interlaced strapwork patterns (see Plate 24). The small stamps used in these designs were merely supplementary to the interlacements. Some were Arabic in character and others purely Christian. Dots and rings and various forms of knots were freely used. The roundels were often stamped over gesso, giving the stamped impression a metallic luster similar to the Italian bindings of the fifteenth century, though these *mudéjar* bindings were produced a century earlier.

It has been asserted that the technique of *cuir-ciselé* was employed on the Mauresque bindings,⁴⁴ but this theory has been controverted by an eminent authority who holds that the technique employed in decorating these bindings was the same as that used in the Gothic stamped bindings, namely, by lines drawn with a blunt tool, and by impressions of stamps; and that the difference between the Gothic and *mudéjar* bindings is a matter purely of art, and not of technique.⁴⁵ The *mudéjar* style of binding flourished in Spain from the thirteenth to the fifteenth century. There are many examples of these Hispanio-Arabic bindings to be found in Spain and a few in England (see Plates 25, 26).

In comparing the Gothic with the *mudéjar* style of book decoration there appears to be a fundamental difference. In the Gothic style, the cover of the binding is ruled off with lines forming compartments, and the stamps play an important part in the decoration and were arranged so as more or less to fill the compartments. In the *mudéjar* style, the lines forming interlacing patterns express the basic motif of the design, and the tools are merely accessory to the strapwork interlacement. The Gothic stamps were greatly varied, representing grotesque forms of animals, flowers, and conventional ornaments of various kinds,

whereas the mudéjar stamps were for the most part forms of knots, and these binders followed the Arabic tradition of using no representations of living objects in their art. To relieve the monotonous effect of these constantly repeated knot forms, the binders interspersed dots, rings, and roundels in the background of the designs.

Panel stamps, a development of the late fifteenth century, are rarely found in Spanish bindings. They are even rarer in Spain than in Italy. I have already pointed out that the attractive panel-stamped bindings were identified chiefly with England, France, the Low Countries, and Germany.

Though the art of gold tooling is thought to have been first practiced in Spain, surprisingly few specimens of early Spanish gold-tooled bindings have survived (see Plate 27). A splendid example is represented in Mr. Thomas's *Early Spanish Bookbindings*, Plate LXXXVIII. This book is bound in brown goatskin with wooden board covers. The decoration is in the mudéjar style, showing a large cross on a sort of pedestal, which is blind tooled in a cable pattern, parts of which are set off with gold tooling. The large cross motif, outlined with a narrow cable border, covers the entire surface of the cover except for a narrow margin outlined by a triple fillet. This rare binding formed part of Sir Sydney Cockerell's collection. The binding is of the late fifteenth or early sixteenth century.

A Cordova binding of the seventeenth century is shown in Quaritch's *Facsimiles of Bookbindings*, No. 66. It is clearly an imitation of the Eve style of decoration with a strong Spanish feeling. The design is confused, showing no originality and little purpose, though the dotting of small stars throughout the background is arresting.

In the fifteenth century, bindings were made in Spain in full vellum with the vellum extending over the fore-edge of the cover and nearly half across it on the upper side, with an envelope like

flap. The cover was decorated with lacings of thongs by which it was fastened with a sort of elongated button, and the book was laced into its cover with the thongs over which it was sewed. While this binding is not of great interest as an example of the art of binding, it has been often imitated, and is an item of historical interest to the collector, since it illustrates a type of binding used in Spain on account books and registers (see Plate 28).

Not only are there exceedingly few specimens of Spanish book decorations available for inspection, but scarcely any reference is made to Spanish bookbinding in the books written on the history of binding. Nothing of interest can be added with reference to the recent development of bookbinding in Spain, as there is little available information on modern Spanish binding.

FRANCE

Few specimens of early French monastic bindings have survived the destruction of the Revolution, when raids were made on everything related to the Church and anything mediæval was connected with superstition and consigned to the flames. Another fact which accounts for the disappearance of early stamped calf bindings in France is the seventeenth and eighteenth century custom of needlessly rebinding old manuscripts and incunabula in order to dress up books and make them fit into the elegant libraries of the luxurious baroque period. This was an age when the exterior of a book was often of more importance than its contents.

The specimens that remain, however, have a style of decoration distinctly French. Those decorated with an arrangement of small stamps have their covers divided by a series of vertical lines; the ones in the center are quite close together and form a sort of panel, which is not nearly so prominent a feature as is found in the German stamped bindings. Between the lines, the spaces are decorated by repeating the same small stamp their entire length,

although different stamps are used for the various spaces. The whole effect is a mass of vertical lines and stamps and is not broken up into prominent compartments. It is very rich and homogeneous, and the stamps themselves are often charming in design. There is nothing crude or heavy about these bindings, most of which have been traced to Paris binderies; and they have a style that is as Parisian as most styles emanating from that French capital.

The French blind panel-stamped bindings also have grace and imagination. They were not produced in France until the last quarter of the fifteenth century, but from extant examples it would appear that binders from various parts of France adopted this method of book decoration. Except for panel bindings identified with the region north of Paris, which resemble some of the Flemish panel-stamped books, there seems to be no particular style characteristic of localities. Most of the subjects represented are of a religious nature, the Annunciation occurring frequently. Intermingled with figures of saints and religious motifs are found hounds, stags, huntsmen, and other secular subjects fancifully interwoven to depict some suggestive idea. No other stamped bindings represent such distinctive art as the panel bindings, the peculiar technique of which I have already noted.

About the year 1500 engraved rolls appeared in France to replace the small stamps. At first these rolls contained patterns which were merely repeats of two alternating motifs, and then rolls were developed having on their surface continuous designs composed of flowers, foliage, fruit, and animals, interwoven in the style of the Renaissance. During the reign of Louis XII, ermine and fleurs-de-lys crept into the roll pattern, and they began to be commonly used in borders on books of this period.

The first binder of the University of Paris, Guillaume Eustace, was probably binder to Louis XII along with Giles Hannequin, a priest from Blois.⁴⁶ There is nothing outstanding in the bind-

ings made for this French monarch, apart from certain identifying characteristics. His symbol, a hedgehog, appears on his bindings together with his arms and the arms of his queen, Ann de Bretagne. Fleurs-de-lys and ermine often dotted the center field of the design and this was enclosed by borders in the Italian style.

The history of bookbinding in France is closely connected with the great collectors of that country, for it was the patrons of this art and craft who served to develop it. There are several prominent figures in the Renaissance period connected not only with careers but with scholarship and art, and among them were a few bibliophiles such as Jean Grolier — a man who has come down to posterity chiefly as a collector of books and beautiful bindings, though he held high rank as a statesman (see Plate 29).

Heading the list of famous French collectors in importance are Grolier and Thomas Mahieu, for many years known as Thomas Maioli. The bindings on which THOMAE MAIOLI ET AMICORUM is inscribed are well known to all bibliophiles, but the owner of these bindings had been unidentified for several centuries until Mr. Seymour de Ricci discovered that Thomas Maiolus was none other than Thomas Mahieu. It has been established that this mysterious book collector was a Frenchman who was principal secretary to Catherine de Medici from 1549 to 1560. Little more is known about him, except that he was alive in 1572, though he is thought to have been a friend of Grolier's. Mahieu was believed by some authorities to have been an Italian, and his name has been given an Italian flavor by some writers who have referred to him as Tommasso Maioli. His bindings, like some of Grolier's, had always been considered the work of Venetian workmen until scholars recently discovered that they came from Paris workshops.

Grolier, Mahieu, a Belgian collector by the name of Marc Louwryn, Sir Thomas Wotton, René Thévenin, and a few other collectors had the words ET AMICORUM tooled on their bindings in

a center cartouche, or interwoven in the design (see Plate 30). This seems to be a peculiarly French practice, and all the bindings on which this inscription appears are now considered to have been made in France. In addition to their names with this dedication to their friends on the upper covers of their books, both Grolier and Mahieu often had the lower covers marked with a distinctive motto. Among the mottoes employed by Grolier are the well-known ones *PORTIO MEA DOMINE SIT IN TERRA VIVENTUM* (O Lord, be Thou my portion in the land of the living) and *TANQUAM VENTUS EST VITA MEA* (Nevertheless, O remember that my life is wind), apparently adopted from the Psalms and Job. There are various other mottoes which are listed and explained by Miss Prideaux in *Bookbinders and Their Craft*, pp. 248-249. Mahieu used among others the mottoes *INGRATIS SERVIRE NEPHAS* (It is useless to help the ungrateful) and *INIMICI MEI MEA MIHI* (or *MICHI*) *NON ME MIHI* (or *MICHI*) ("My enemies may rob (or have robbed) me of my lands, but not of my soul").⁴⁷ Although something of a cynic, Mahieu was not discouraged from following ardently the quest of collecting books and beautiful bindings (see Plate 31).

The French bindings of these contemporary collectors, along with others of this time, are regarded by many connoisseurs as exhibiting the highest attainment of book decoration in gold-tooled designs. This is all the more remarkable since gold tooling had been practiced a very short time in France when these bindings were produced (about 1535). The Italian gold-tooled books of earlier and contemporary dates lack the creative quality displayed in the designs of these early French bindings. The French designs were produced by the use of straight lines, a variety of curves, and a very few flowered tools which were woven into a pattern created by an artist. On the other hand, the Italian binders of this period employed a greater number of tools than the French, and many of their designs seem often to have been

built up by an arrangement of these tool forms rather than to have been originally created and developed with the use of tools only as accessory to the central pattern. There are, however, numerous examples of Italian gold-tooled bindings which exhibit originality and great taste and simplicity, such as the Venetian binding shown by Hobson in *Maioli, Canevari and Others*, Plate 18. The designs on many of the early Grolier and Mahieu bindings consisted of simple flowing interlaced double lines and curves, with a few small tools worked into the pattern. The artist who conceived them had great taste and inspiration, and the hand that tooled them made them alive.

Many of the designs on Grolier and Mahieu's bindings are very similar, as might be expected, since some of them probably represent the work of the same binder, though his identity is unknown. A few of the Mahieu bindings are somewhat more elaborate than those of Grolier, and there is a type of Mahieu binding with dotted background that is rarely found on Grolier books. The tools on Mahieu's bindings, instead of being solid as they generally were on Grolier's, are either azured or merely outlined. Another distinctive characteristic of some Mahieu bindings is the effect produced on the background of the design, which Miss Prideaux attributes to rubbing gold into the grain of the leather. These bindings have been described as "the powdered bindings." I have already pointed out the smooth backs characteristic of the bindings of this collector.

The simple geometric Grolier bindings are well known, as are those colored by some sort of painting process. But a less known type of binding and one not so popularly associated with either Grolier or Mahieu, though bearing their mottoes, is that on which classical temples or porticoes appear in three-dimensional representations (see Plate 32).⁴⁸ Examples of sixteenth century portico bindings are comparatively few in number. Their origin appears to be both Italian and French. It may be of interest to

note that the same manner of portraying a portico in perspective which is tooled on these bindings is likewise found printed in books by Simon de Colines.

Almost all writers on this subject have arbitrarily divided the Grolier and Mahieu bindings into groups, analyzing each group in detail, but I have not attempted to make an exhaustive classification of all the types of bindings represented in these two famous collections, as they have already been amply described and analyzed by many authorities. I have merely pointed out some outstanding types with a description of their main characteristics. There are quite a number of reproductions of Grolier and Mahieu bindings easily accessible, and a goodly number of specimens may be found in both private and public libraries in this country.

Geoffroy Tory in his *Champfleury* states that he was employed by Grolier to design some letters for him, and it is thought that these letters may have been used on Grolier's bindings and that Tory might have been connected with the designing of some of the Grolier bindings, as he is said to have been a bookbinder as well as a writer, engraver, printer, and artist. The famous "pot cassé" bindings of Tory are outstanding examples of Renaissance gold-stamped bindings. The center panel design in which the pot cassé is introduced is composed of flowing curves and small leaves. The border is in the Italian style with a running repeat of a single motif. Tory explains the pot cassé device in his *Champfleury*. He interprets the broken vase as signifying our body, which is a vessel of clay (pot de terre), and the toret, or wimble, as Fate, which pierces both the weak and the strong. The toret, which is in the form of a T, doubtless represents a verbal quibble on his name. In this style of binding Tory achieved an entirely new and original manner of artistic decoration in bookbinding. There is an example of a pot cassé binding in the British Museum collection without the wimble, a facsimile of which is produced

by Fletcher, and another binding in the Bibliothèque Nationale which has the vase pierced by the wimble. There are, however, few examples extant.

This new type of panel stamping in which the design was purely ornamental and was executed in a manner that gave an effect very like gold tooling by hand was in marked contrast to the fifteenth century panel stamping representing pictorial subjects and impressed on leather covers in relief. It was used by Tory both in blind and in gold, and later, gold-stamped bindings after the Tory method were produced in several countries. Mention has been made of these as trade bindings. The French examples, especially the small Lyons bindings, have considerable artistic merit, though the designs are obviously adaptations from hand-tooled books. Not only trade binders but extra binders were designing and tooling books by hand in Lyons early in the sixteenth century. In fact the extra Lyons binders are celebrated for the artistic bindings they are thought to have executed (see Plate 33).

François I, the luxury-loving Renaissance king, was a generous patron of the fine arts, and he indulged himself in collecting beautiful bindings. His binders are known to be Etienne Roffet, called Le Faucheur, and Philippe Le Noir. They created a number of distinguished bindings for their royal patron. Some of these bindings are decorated with semis patterns of fleur-de-lys and the King's initial in gold or silver. Others are in the style of Grolier bindings, but almost always this king's device, together with his arms, will be found on his books (see Plate 34). The device usually depicts a salamander surrounded by flames of fire with the motto *NUTRISCO ET EXTINGUO*. The books bound for the Dauphin during the life of François I have a dolphin in addition to the salamander. It is thought likely that one of the binders to François I also worked for Grolier.⁴⁹

During the reign of Henri II (1547-1559) a great variety of

beautiful bindings was produced. Grolier and Mahieu were still collecting, and "the unknown binder of the King" was executing exceptionally graceful designs on the covers of books. Two of the most famous *femme bibliophiles* were Catherine de Medici, the Queen, and Diane de Poitiers, the mistress of Henri II, created by him Duchesse de Valentinois. These two ambitious women vied with each other to secure the most distinctive bindings obtainable, and by their patronage fostered the art of fine binding. Diane is said to have influenced Henri II to issue an edict which obliged every publisher to deliver three copies of each publication to the Crown, and one of each of these books was placed in Diane's library at Anet. This edict constitutes a forerunner of the copyright law which was later established⁵⁰ (see Plate 35).

The ciphers on the bindings of Henri II and Diane are perplexing. These bindings are adorned with the royal arms and the crowned initials of the King as well as the interlaced crescents and the bows and arrows supposed to represent the devices of Diane. They are also stamped with a monogram composed of what is thought to be the initial of Diane and that of Henri (see Plate 36). There are some who doubt that the King would have permitted his initial to be so openly entwined with that of his mistress, and it is suggested that these letters are not HD but HC, representing Henri and Catherine, his queen. However, this same monogram with both the arms of the King and those of his mistress appear on the Château of Anet built by Diane, which contained her famous library, and there are various evidences to confirm the opinion that the letters in the cipher represent those of the King and Diane, though this same cipher is found on a necklace of Queen Catherine. MM. Marius Michel support the opinion that the ciphers are those of Henri and his mistress.⁵¹

Catherine's bindings are richly tooled and were evidently designed by the most able artists of the time. They bear the arms of France with a crown, under which is a monogram formed by an

H and two C's. Catherine de Medici had a large library in her Château of Chenonceaux near Paris, but few of her bindings survive, as she died deeply in debt and her library suffered many vicissitudes. It would have been seized by her creditors had it not been for the efforts of her chaplain, Abbé de Bellebranche, and others, who finally rescued it, and it afterwards became the property of the royal library. Later most of the books were rebound with the royal arms placed upon their covers to indicate that they were the property of the Crown, and consequently there are few of Queen Catherine's bindings extant. The King's books, which he kept in his library at Fontainebleau, are now in the Bibliothèque Nationale, and those of Diane were sold at auction in 1724.

Few of the early French binders have been identified. We know the names of a number of binders connected with panel-stamped books, such as Jehan Moulin, Johan Dupin, Julian des Jardins and others, and I have mentioned Guillaume Eustace, the first binder of the University of Paris, the Roffets (Pierre and Stephen), and Philippe Le Noir, all of whom have been associated with the binding of books for sixteenth century collectors. But there is a long list of binders' names known to us, taken from records of various kinds, whose work cannot be definitely connected with particular bindings.

Claude de Picque, bookbinder and bookseller, is known to have been binder to Charles IX. Charles had two interwoven C's for his monogram, and this cipher was crowned and appeared on the sides of his books, usually with the arms of France. During his reign, the Eve family came into prominence as bookbinders with the introduction of what is known as the "fanfare" style of decoration (see Plate 37). Both Nicholas and Clovis Eve were binders during the reign of Charles IX and continued binding while Henri III, Henri IV, and Louis XIII were on the throne of France. Whether Clovis Eve was the brother or the son of Nich-

olas is apparently not certain. The style "à la fanfare" consisted of a geometrical scrollwork design formed by interlaced double lines and single curves, with the introduction of small flower and leaf forms and with the larger spaces filled with branching foliage (see Plate 38). Several excellent examples of Eve bindings are reproduced in Quaritch's *Facsimiles of Bookbindings*.

During the reign of Henri IV, bindings "powdered" with monograms and fleurs-de-lys were in vogue, and dots began to be used more generously. Jacques-Auguste de Thou (1553-1617) was the famous bibliophile of this period (see Plate 39). His bindings were usually quite plain, with his armorial bearings in the center, though a few of his bindings were in the fanfare style. Even his plainer books often had their spines quite elaborately decorated in accordance with the style of the period. A reproduction of a very beautiful example of one of de Thou's late bindings in the simple style will be found in Fletcher's *Bookbinding in France*, p. 39. This binding shows the charming use of the dotted fillet which came in with Le Gascon.

Clovis Eve was succeeded by Macé Ruelle (1606-1638) as binder to Louis XIII. Ruelle, in addition to being a bookbinder, was a printer and bookseller. He is said to have invented the art of marbling paper, though this is probably not true. However, he evidently found out how marbling was done and produced some very attractive comb patterns, which he used as end papers.

The greatest French binder of the seventeenth century was the mysterious Le Gascon, who produced pointillé bindings unexcelled in delicacy and workmanship (see Plate 40). He had countless imitators in his own country and in foreign lands as well, but there is something inimitable in Le Gascon's bindings that to the trained eye makes them distinguishable from even the most meticulously executed copies. There is also something that excites one's delight and wonder, and in my opinion Le Gascon should rank with the greatest masters of book decoration, for

not only is his style entirely original and apparently untrammelled by conventions but his "all-over" designs are very delicate and beautiful, his tooling is extraordinarily precise, and he showed unrivaled taste in his simple designs, if the de Thou binding found in Fletcher, which I have already pointed out, is a veritable binding of Le Gascon's. What appears to be Le Gascon's early work was characterized by an outlined framework, but in his later designs the pointillé ornament carried the motif without distinctive outline. In this manner he achieved a most brilliant and delicate tracery effect. He used red morocco almost exclusively for his bindings and frequently inlaid them with various colored leathers. He had all his ornamental tools cut in dotted, instead of solid, outline (see Plate 41). His bad habit of cropping the edges of the text does not appear somehow to be consistent with his fine feeling in the matter of design, though probably his forwarding was done by someone other than himself.

For a time it was doubted whether Le Gascon ever existed, but it has been established through an entry in the register of the Guild of St. Jean that he bound a missal for the Guild, and in the letters of correspondence between certain well-known men Le Gascon's name has been found. His identity, however, has been debated by several authorities on binding. M. Gruel in his *Manuel Historique* leans toward the opinion that Le Gascon is identical with Florimond Badier. MM. Marius Michel in *La Reliure Française* insist that Badier cannot have been Le Gascon, judging from a signed binding of Badier's which exhibits a kind of workmanship they deem unworthy of Le Gascon, and M. Thoinan, in *Les Relieurs Français* expresses the opinion that Badier is an entirely different person from Le Gascon, and he believed that the "couped head" which appears on these pointillé bindings and has been considered a sort of binders' mark is the signature of Badier. If this be so, then all the so-called Le Gascon bindings are the work of Florimond Badier, and the mystery about this Le Gas-

con, who evidently worked in 1622 as a binder, still remains unsolved. The most successful imitators of Le Gascon were Magnus of Amsterdam and Badier, if one considers him not Le Gascon himself.

Inlays of colored leather are not uncommon on French bindings of the sixteenth century. An unidentified Parisian binder, working between 1560 and 1570, is thought to be the first to practice to any extent the art of inlaying bindings with different colors.⁵² This method of introducing several colors into the decoration of binding is much more durable than the polychromatic effect achieved by painting.

Heading the list of the eighteenth century French binders are Boyet, or Boyer, the Padeloups, the Deromes, Le Monnier, and Duseuil. The surnames of Padeloup and Derome without a prefix mean little, for there were many bookbinders in both of these families, as there were in the Eve family before them. The most celebrated of the Padeloups were Nicholas and Antoine-Michel. Of the Deromes, Derome le jeune is best known.

The Boyet family, which began binding in the seventeenth century, was celebrated for its excellent work. One of the Boyets is said to have introduced elaborately decorated doublures. Luc-Antoine, who was appointed binder to the King in 1698, is perhaps the best known. The Boyets tooled the backs of their books more elaborately than the sides, which were left fairly plain except for gold lines and corners tooled in a delicate dentelle pattern. Augustin Duseuil is thought to have been a pupil of the Boyets. He used wide dentelle borders and doublures decorated even more lavishly than those of the Boyets. His work was excellent, and his bindings elegant in style though delicate in design. Le Monnier was a popular binder of his time, who came to fame for his skill in inlaid designs. A. M. Padeloup is known chiefly by his "mosaic" decoration of bindings which were inlaid in colored leathers (see Plate 42), though he produced bindings in many

styles, some often quite simple. His work is technically almost faultless (see Plate 43), but his taste is often florid and his art is not always above criticism. Among many collectors, he worked for Mme. de Pompadour. The Deromes' work is similar to that of Padeloup. Derome le jeune won great renown for his dentelle bindings (see Plate 44). His designs are very lacelike in effect and one loses consciousness of forms of tools, which seem to be lost in the design. In Thoinan's *Les Relieurs Français* will be found a full account of all these binders and their work, and under "Etude sur les Styles de Reliure," Thoinan illustrates his text with line cuts showing various French styles of design. The second volume of this valuable work is entirely devoted to a critical biography of French binders up to the nineteenth century, and constitutes a veritable dictionary on the subject.

After these binders ceased working, bookbinding in France lost most of its claim to fame until Thouvenin appeared, binding books in the late romantic style, and Vogel and Simmier in the style "à la cathédrale" (see Plate 45). Then followed Trautz, a man born in the Grand Duchy of Baden, who came to Paris, worked in the bindery of Bauzonnet, married his daughter, and succeeded him in the middle of the nineteenth century (see Plate 46). Meanwhile there were other binders such as Bozérien, and Capé, all excellent workmen, but of the plodding type who were not great artists. Trautz's workmanship was of the highest order. He used excellent leathers and other materials and did not copy too slavishly the designs of his predecessors, but he showed little creative ability, though his work has been much sought after by collectors.

Later came Cuzin, Duru, Lortic, Chambolle, Mercier, Gruel, and others — all honest and able craftsmen living in an age that was past but making a valiant effort to keep French binding on a high plane. These men were often inventive and always painstaking, but they were not creative. Some of their designs were

pitifully sentimental and trite, all the more so because they were executed with such perfect mastery of technique and exhibited superlative skill and finish. We unquestionably owe much to them for their forthright integrity as craftsmen and for the standards they set and maintained.

The master binders of France were not young when the war broke out in 1914, and their places had soon to be taken by the apprentices being trained in their workshops. But most of the young apprentices never returned from the war, and consequently the perfect French technique of binding was in danger of being lost. This is not an exaggeration, for the empty workshops in Paris after the First World War were obvious and French binding establishments were concerned about being able to carry on worthily the craft of binding in France. There was a great effort made to staff the technical schools with competent instructors, and the best of the remaining craftsmen were sought for and were made attractive offers to teach their craft in these schools. Excellent "modern artists" were put in charge of the art departments of the technical schools, and students of binding were encouraged to attend their classes as well as those of the older craftsmen teaching the technique of the craft.

As a result, nearly twenty years later, Paris was having continuous exhibitions of "modern bookbinding" in its salons, and the periodicals such as *L'Illustration* and *Mobilier et Décoration* were filled with reproductions of contemporary French bindings. M. Silvan Savage, the talented French designer, was made Director of the Ecole Estienne, which devoted itself entirely to the art and craft of the book. This institution is a municipal school very elaborately equipped to teach printing, design, type cutting, bookbinding, and all other book arts, but takes in only male pupils. The Arts Décoratif, however, recently under the direction of Mlle. Langrand was open to both male and female pupils and gave excellent courses in bookbinding. In the summer of 1938 at

the closing exhibition of the binding work done by the pupils in this school during the year, the character of the designs made by the pupils and the quality of their work were amazing. The old conventional type of book decoration was absent, and the pupils were actually creating new designs.

Before this time, Pierre Legrain had brought a collection of his bindings to America for exhibition and many of them were sold for very high prices. It was this modern binder who did much to make the bibliophiles in this country conscious of the advent of a new art in book decoration, and from then on our collectors were eager and waiting to secure superior specimens of modern book-binding (see Plate 47).

A long list of modern French binders could be named, among them both men and women, who were active in binding books just before World War II. There is Rose Adler, who paced the women binders and who insisted, from the time she began to bind books, on a new formula for book design. She worked ceaselessly to proclaim a new era in the decoration of books, and captured public attention soon after World War I by her original designs. Among French women binders deserving of mention are Marguerite Fray, Antoinette Ceruti, Suzanne Regnoul, Mme. Weill, Geneviève de Léotard as well as others who have produced creditable bindings decorated with a refreshing disregard for traditional line and form.

A binder by the name of Creuzevault introduced a style of decoration that is architectural in effect which is not achieved by a design drawn in perspective, as in the case of the portico bindings made in the sixteenth century for Grolier and others, but by raised panels and other raised forms that gave a structural appearance to his covers and took the decoration of binding out of the two-dimensional. He uses very thick boards, which are beveled at the fore-edge, and his designs are mostly tooled "à froid." Georges Cretté, a former head workman in the Marius

Michel bindery, does all his own designing and tooling and even some of his forwarding. He has produced simple line designs, some semis patterns with a modern interpretation, and some quite original, fanciful designs of great merit. His tooling is extremely brilliant and perfect, and his forwarding painstaking and substantial. Paul Bonet does his designing in his apartment on the Rive Gauche and in 1938 had an atelier where workmen carried out his designs under his supervision. It is this last-named binder who evolved an entirely new style of book decoration — totally original, amazingly clever, and really “modern” in spirit, with a *mouvement radiant* (see Plate 48). His great swirling designs are so ingeniously drawn that, although they are carried out on a flat surface, they represent a third dimension purely through an illusion created by the drawing, and not by means of an alteration in the surface of the cover as was practiced by Creuzevault. The tooling on his bindings is faultless and brilliant. It has a machinelike precision with a quality that can only be achieved by “striking” each tool separately by hand. Paul Bonet, in my opinion, is without a rival today.

As for the celebrated ateliers of Gruel and Mercier, they have been practically closed. Just before World War II Gruel’s workshop was in operation only between the hours of nine and eleven in the morning and M. and Mme. Gruel were spending their time as “patrons” of a very elaborately appointed bookshop in Paris. Mercier, installed in a tiny workroom, complained of having had nothing to do for three years. He insisted sadly that he had no feeling for the modern, and he continued to bind his books usually in the fifteenth century fashion, using impeccable technique. It is truly sad that such accomplished craftsmen should have failed to live in the present.

Modern French binders show no paucity of imagination, nor any lack of present-timed consciousness. They are not bound by conventions nor are they lacking in inspiration and verve. On

the eve of World War II there was in France an amazing vivacity, a veritable *vita nuova* among the rank and file of bookbinders, and it was evident that the talent for creating styles, so singularly peculiar to the French, could not fail to make itself manifest in a new art of book decoration. In no other country at that time was there to be found such creative art in the decoration of books as in France, and it made one feel that de Laborde's statement "La relieure est un art tout français" was an excusable exaggeration.

ENGLAND

A very tiny volume, bound between two thin lime-wood boards which are covered with red leather and decorated with an interlaced design, was found in the tomb of St. Cuthbert at Durham when his shrine was opened in 1104. St. Cuthbert died in the year 687 on an island of Farne off the north coast of England. He was buried at Lindisfarne, and a few years later his body was taken to Durham. The book found in his coffin is a manuscript of the Gospel of St. John, unornamented and written in uncial letters. The binding on the obverse cover is decorated with interlacements and a leaf ornament in relief, the incised lines still showing traces of color. The reverse cover has just a simple decoration of lines. The binding has been pronounced by English experts on Anglo-Saxon art to be not later than the ninth or tenth century, and it is thought possibly to be an example of seventh century Northumbrian binding.⁵³ In either case, it is the earliest English binding extant. It is now in the Jesuit College at Stonyhurst, England, and not easily accessible for inspection, as it is closely guarded, but a reproduction of both covers is shown by Mr. G. D. Hobson.⁵⁴

On the St. Cuthbert book we have an example of a binding decorated freehand with a sharp instrument like an engraving tool, and not stamped by the use of cut dies. This little binding seems to be an isolated specimen, and a gap of several centuries occurs

before decorated bindings were produced in the monasteries of England. I have already referred to the twelfth century Romanesque English stamped bindings in a previous chapter, and have indicated their general characteristics. Mr. Hobson has made a special study of these brown leather bindings, produced principally at Winchester, London, and Durham, and he describes them in detail in his book *English Bindings Before 1500*, giving many excellent reproductions of them. Some of his facsimiles of the curious dies used on them afford an opportunity for a fascinating study of the imaginative conceptions of the artists who drew the designs for the stamps.

A Romanesque binding now owned by the Society of Antiquaries, London, is a superb example of one of these twelfth century English bindings. It is bound in dark-brown goatskin and ornamented in blind with intaglio-cut stamps.⁵⁵ In a rectangular panel on the obverse cover are two large circles, one above the other, both the circles and the outline of the panel formed by repeating small stamps. These circular patterns are characteristic of early English designs and are found later in some of Berthelet's work and, still later, in English seventeenth century book decoration.

England is often represented as lacking in originality and initiative in producing decorated leather bindings, but this group of twelfth century English work should retrieve her reputation, for while a few decorated bindings were produced in France and possibly some in Germany during this period, England probably produced the greatest number and seems to have justified a reputation for decorating books in an original manner at a time when binders on the Continent, except in France, were doing little or nothing. It has been hinted, but not conclusively proved, that the stamps used on English bindings were cut, and possibly designed on the Continent. In view of the fact that England today is so expert in the cutting of dies for designs that require perfect

register for reproduction in colors, this suggestion does not, in my opinion, merit consideration without further proof.

The production of Romanesque bindings, on which most beautifully cut stamps were used, appears to have ceased very suddenly, and few examples are known of either English or Continental stamped bindings representing the period between about 1250 and the fifteenth century. It should be noted that with the reappearance of stamped bindings in England there is a very apparent difference in the stamps used. The later stamps are far less imaginative and are more commonplace in design; they are also less numerous and not so expertly cut. The sudden cessation of binding activities in the thirteenth century may conceivably be explained by the demoralization of monastic life which was taking place at that time; and the vigorous revival of the art and craft of binding in the fifteenth century is doubtless due to two factors — the regeneration of the monasteries, with the consequent return of the monks to their former pursuits, and the tremendous development of the book trade after the invention of printing.

The monks at Canterbury are thought to have been among the first to revive the art and craft of binding in England, and several of their late Gothic bindings are now in the Bodleian Library. Like other English bindings of this period, the decoration on them shows unmistakable evidence of foreign influence. After Canterbury, the abbey at Salisbury and numerous binders at Oxford became active in binding. In some of their work the use of the French manner of arranging stamps in vertical rows is apparent. The London binders, on the other hand, show the influence of the Low Countries. The first London binder has not been identified, but he is referred to as the "Scales binder," since one of his most frequently used stamps represents a pair of scales. This binder not only used decorative stamps on his bindings but is the only English binder to have used both the stamped- and the cut-

leather method of decoration.⁵⁶ G. D. Hobson has a fondness for naming things, and he calls one of the Cambridge binders of this period the Demon binder, another the Unicorn binder, and still another the Greyhound binder, giving them these appellations because of their use of certain stamps bearing a reproduction of a demon, a unicorn, and a greyhound, respectively.

Caxton returned to England from Bruges in 1476, and evidently brought with him not only the necessary equipment to set up the first English printing establishment, but bookbinding tools as well, and possibly Continental workmen. The few specimens of his bindings that have survived show a distinct Continental influence, and the stamps he used are totally different from those cut in England. Richard Pynson, a Frenchman by birth and one of Caxton's successors, often used a large rose in the center of his panel-stamped bindings, and smaller roses with foliage and clusters of grapes will be found interwoven in his borders. John Reynes (see Plate 49), bookseller and binder to Henry VII and Henry VIII, employed the Tudor rose frequently, as did other English binders of the time. He used scrolls enclosing mottoes and placed the sun and the moon in his panels, in addition to shields and coats of arms. He also employed a distinctive roll stamp on which were engraved his trademark: a bird, a flower, a bee, and a dog. A book ornamented with this roll is now in the Gloucester Cathedral library.⁵⁷ There were numerous binders working in England at this time, and they all used engraved rolls and panel stamps, producing more or less the same type of bindings. They did not use pictorial panels very extensively, but were fond of employing instead panel stamps with heraldic devices cut on them.

This period is not marked in England by any great contribution to the art of binding. No national style was developed, and almost all the decoration appears to be imitative of the styles of book decoration on the Continent. Undoubtedly this is due to the

fact that, after foreign books were allowed to be imported into England in 1484, booksellers from the Continent opened establishments in London and in the university towns of Oxford and Cambridge, where they not only sold books but bound them; and they probably brought both stamps and workmen with them when they emigrated to England. It was not until the following century that English binders began to display once again any signs of a distinctive style of their own.

There were in England no bibliophiles quite like the inimitable Jean Grolier, nor was England distinguished by so many or such discriminating *femmes bibliophiles* as was France, but it is a mistake to think of France with its Grolier, de Thou, and royal collectors as totally eclipsing England in this respect. In addition to the royal bibliophiles there is a long list of English collectors who merit recognition, beginning with Archbishop Cramner, the Earl of Arundel, the Earl of Leicester, Lord Lumley, and others in the sixteenth century (see Plate 50) and continuing in increasing numbers down to the present century. The books in English collections attest the fact that these bibliophiles were not only book lovers but ardent patrons of binding as well. In the British Museum alone, we find among others such noted collections as those of Lord Harley and the Rev. Mr. Cracherode, and bindings which belonged to Thomas Wotton, called the English Grolier. Some of the eighteenth century collectors, like the Duke of Devonshire and the earls of Oxford and Sunderland, are said to have been bibliophiles imbued with a great passion for acquiring books, and they apparently spent much of their time searching in obscure bookshops for some item to add to their libraries.⁵⁸

Among the English kings who had an interest in collecting books, Henry VII was the first to form a library. All the bindings still existing that once belonged to this king are thought to have been originally bound in velvet.⁵⁹ Some of these are now in the

Westminster Abbey Library, but the finest specimens are in the British Museum.

Velvet, silk, and satin were used for book covers in various countries at an early date, but England has no rival in the production of embroidered bindings (see Plate 51). A Psalter belonging to Anne Felbrigge, an English nun, and probably embroidered by her during the latter part of the fourteenth century is the earliest known example of an embroidered binding. On the upper cover of this manuscript is a graceful design depicting the Annunciation, and on the lower cover is a representation of the Crucifixion, embroidered in colors and having a groundwork in gold thread. This binding is now in the British Museum. Most of these embroidered covers represent the handiwork of the English nuns, but the Tudor princesses were fond of making embroidered book covers in gold and silver studded with pearls; and in the reign of the Stuarts many covers for Bibles and prayer books were made by noblewomen outside the convents, and the books were bound in velvet and embroidered with Bible scenes or floral designs, and even with portraits of the King. The little prayer books were often decorated with engraved gold and silver ornaments and fastened with elaborately chased precious metal clasps. These English bindings are not without charm, and I think they are worthy of mention, though I have made no attempt to do more than that, since the subject has been amply covered by Mr. Cyril Davenport (see Plate 52).

The art of gold tooling was not introduced into England until about 1540, or over fifty years after it had been practiced in Continental countries. Thomas Berthelet, or Bartlet, printer and binder to the King, was the first English binder to tool his books in gold (see Plate 53). His tools were cut "solid" like those used in Italy at the time, and it is generally recognized that his designs were inspired by foreign models of that period. In fact, he even described them in his bills as "being bound after the Italian

“fascion.” It is not known whether Berthelet was actually taught the art of gold tooling by an Italian workman or whether he acquired his knowledge through his own trial-and-error efforts to learn this art from foreign examples. However that may be, he quickly gained a mastery of gold tooling and some individuality in design, for the tooling on most of his books is excellent, and his designs became less Italianesque as he continued to bind. The best examples of his work are his royal bindings.

None of the bindings attributed to Berthelet were signed, so that it has proved difficult to identify his bindings with certainty. English binders rarely signed their work on the outside of the binding, but, with the passing of time, they used the method of pasting tickets on the inside of the book or of placing initials on the lower edge of the inside of the cover.

Before printing was introduced into England, the leathers most frequently used for binding books were sheepskin and goatskin, and Berthelet is thought to have been the first English binder to use calfskin almost exclusively for his bindings.⁶⁰ He also used a white leather, probably deerskin or doeskin prepared with lime, which has proved very durable. That his calf bindings are still in a marvelous state of preservation after all these years bears witness to the fact that tanners and dyers of leather in Berthelet's time understood their craft far better than those of the present, as the calf prepared today for binding lasts barely fifteen or twenty years and is not suitable for the binding of valuable books.

Berthelet succeeded Richard Pynson in 1530 as printer and binder to King Henry VIII and was the first binder to be honored by patent in England, receiving the magnificent allowance of four pounds a year for life.

The influx of foreign booksellers and binders into England in the sixteenth century grew so serious that measures were taken to control it. Among other expedients an “Acte” was passed in

1533, which restricted the importation of bound books into England in order to encourage the home production of books and bookbinding. However, this act did not prevent foreign bookbinders from entering the country and setting up their workshops, and since these workmen were evidently superior to those of England, they captured a great deal of the binding trade. As a consequence, there were grievances presented to the Lord Mayor of London, where the greatest number of foreign binders seem to have settled, and a decree was enacted in 1597 which limited the number of foreign workmen "who intruded into the trade and workers of the bookbinders." This seems to have effectively controlled the situation, as there is apparently no mention of further grievances recorded in the "Stationers' Company."

After the middle of the sixteenth century, bindings decorated with a stamped center and corners, with either plain or tooled border, replaced the geometrical compartment designs used previously. The binders of Archbishop Parker, a noted collector, who is said to have established a printing shop and bindery in his residence of Lambeth Palace, have been credited with having introduced this style, though I have failed to find any conclusive evidence in support of this theory.

During the reign of Queen Elizabeth the bindings made for Thomas Wotton are the most noteworthy. This well-known collector has been called the English Grolier, owing to the fact that some of his books were bound in the Grolier style with the inscription THOMAE WOTTONI ET AMICORUM. His bindings were decorated in several different styles, and those similar to the Grolier bindings with Wotton's name and the inscription on them are believed to have been bound by French workmen, either in France or in England (see Plate 54). A distinctive characteristic of the Wotton bindings is that of the color combination, for Wotton used brown leather for his bindings with the decoration tooled on black. Some of his bindings are very plain, with merely

an elaborate armorial stamp in the center. The bindings of this noted bibliophile probably exhibit the best work done in England in the sixteenth century, much of which was of a high standard.⁶¹

Though the Little Gidding's bindings represent for the most part the work of amateurs, they are not without merit, and certainly the story of their production is not lacking in interest. It was during the reign of Charles I (1625-1649) that Nicholas Ferrar, an English theologian, organized a small religious community composed of his relatives at the manor of Little Gidding in Huntingdonshire. These pious people, mostly women, occupied themselves with a variety of useful pursuits, among them bookbinding, and a teacher was employed to instruct them in the craft. The Little Gidding's nuns, as they were called, were thought to have produced embroidered as well as gold-tooled bindings, but no embroidered bindings have ever been identified as their work. They bound several "Harmonies" of Biblical books in leather, very elaborately tooled, and their velvet bindings were decorated with gold ornaments. These were the first Englishwomen to bind books. A niece of this learned Mr. Ferrar, by the name of Mary Collet, is known to be one of the Little Gidding binders. She produced some excellently tooled books.⁶²

Beginning with the seventeenth century, English technique in binding improved, and a less heavy style of decoration came into vogue (see Plate 55). The tools used were smaller and more expertly cut, but there is every evidence of the influence of Parisian designers on the English binders of this period. The English work is not so perfect as the French in technique, but a large variety of designs is found on the English bindings, and the so-called "Mearne bindings," which were produced toward the end of the century, display an effect of great richness, though perhaps they are less delicate than their French models.

All the finest binding produced in England in the latter part of

the seventeenth century had been attributed to Samuel Mearne, bookbinder to Charles II, until 1917 when "The Great Mearne Myth" was uprooted by Mr. Gordon Duff, who read a paper before the Edinburgh Bibliographical Society exposing the fallacy of regarding Mearne as a great binder.⁶³ That Mearne was an important bookseller and publisher is not questioned, and like most publishers of his time he must have had a shop in connection with his publishing business where workmen were employed to bind his publications — hence his appointment as the royal binder of the Restoration, but Mr. Duff expresses doubt whether Mearne himself ever bound a book, and cites convincing proof that Mearne's son Charles could not have bound certain books attributed to him.

Probably only the plainer royal bindings were made in Mearne's small workshop, and the more elaborate ones were executed for him by other binders. Bagford and Dunton, who appear to be the first English writers on the subject of binding, mention several noted binders who worked for Mearne, among them a workman from Holland by the name of Zuckerman, or Suckerman. It is this binder who is thought by some authorities to have produced the most elaborate of the bindings formerly accredited to Mearne. But this theory has been attacked as a mere conjecture, and who the Mearne binder really was does not seem to have been conclusively established.

It is certain that Mearne was mentioned in state papers and elsewhere as a royal binder, and he is thought to have been bookbinder to Charles II and James II from 1660 to 1674.⁶⁴

The so-called Mearne bindings have been fully described by Mr. Cyril Davenport in his book on Samuel Mearne, and extraordinarily good reproductions are given of these bindings, but for those to whom this book is not accessible I will briefly describe the work of this "binder to the King." In referring to the book on Mearne by Mr. Davenport, it should be borne in mind that the

book was written before Mr. Gordon Duff's evidence about the Mearne bindings had been established.

It is generally conceded that the binder of these books was influenced by the mysterious French pointillé binder Le Gascon, or Badier, as some authorities believe the pointillé binder to have been, but if the Mearne binder imitated Le Gascon in his designs and in the form of some of his tools, he certainly evolved a style of his own, and many of his tools are distinctly original.

There is great variety displayed in the decoration of the Mearne bindings. They have been classified into three main groups — the "rectangular," the "cottage," and the "all-over." In the rectangular style the lines, most often thin double ones, are usually placed some distance from the edges of the book, forming a rectangular panel, the four corners of which are ornamented, often with a crowned cipher or with a spray of flowers. This is one of the plainest types, but it is a style that has great distinction, owing to the artistic sense displayed in the proportions of the design. The backs of this style of binding are richly tooled with a mass of delicate tool forms — a fashion that is characteristic of all Mearne bindings.

The cottage style is the one for which this binder is most celebrated (see Plate 56). In these designs the large center panel is a broken rectangle with a peaked top and bottom resembling a cottage roof. The broken outline of the panel is often inlaid in black leather in strong contrast to the leather of the binding. The whole center is elaborately decorated with leaf forms and an intermingling of small delicate tools, and is filled in with dots, rings, and frequently with small curves piled one on the other in the form of waves, likened to fish scales in some descriptions of Mearne bindings. I find no convincing evidence for doubting that this broken-gable design was invented by the Mearne binder, though it is contended that it originated in France.⁶⁵

The all-over designs are very suggestive of the Le Gascon style,

although quite different in treatment. The Mearne all-over designs are bolder and more imposing, if less delicate, than Le Gascon's, and they have larger spaces left undecorated. In these designs the Mearne binder outlined large rectangular forms often made up of a double-horned curve, inlaid with colored leather or painted, and he used silver and black paint frequently to fill the outline of small tools and flower petals. These repeat forms occupy the whole side of the book, merging into the book edges in a variety of ways most expertly managed. This style does not suggest Le Gascon to me, except in a very general way, and it is certainly uniquely distinctive (see Plate 57).

The Mearne binder used a great variety of original flower forms in both dotted and unbroken outline, and his pineapple tool, cut in several sizes, seems to have been a favorite with him. His double-horned curve, which he often employed to form his motifs and frequently used in other ingenious ways, was cut in several sizes and in different outlines. His tulip and tulip-bud tools, of which there are also many sizes and various "cuttings," are very simple outline tools, the petals of which are often colored with paint, in his designs. Then there are in the Mearne designs stars, rings, and dots, roses and other flower forms, and leaf sprays suggesting the fanfare style of Clovis Eve. All these tools are used lavishly but not promiscuously. There is always purpose as well as restraint in this binder's use of his great variety of tools (see Plate 58).

The Mearne binder usually used black, blue, or olive morocco, less frequently red morocco, and occasionally calf. He is celebrated for his decorated book-edges and is said to have discovered the process of decorating his fore-edges with hidden paintings.

The Mearne bindings seem to me to be the work of a creator, not an imitator, though a binder unconsciously absorbing the influence of some particular style of binding is certain to show

traces of that influence in his work. This influence, in the case of the Mearne binder, is manifest, but that it was absorbed and utilized in a creative manner seems equally manifest.

In the eighteenth century there were several good English binders, such as Eliot and Chapman, trade binders, who are said to have been employed by Lord Harley; James Edwards of Halifax, the inventor of transparent vellum bindings; John Whitaker, who bound in the classical Etruscan style late in the century; and Roger Payne, the genius who infused originality into the decoration of English bindings after nearly a century of rather uninspired performance.

Roger Payne was a most versatile individual, and a veritable artist. He has been much written about and his peculiarities have been emphasized, along with his reputed fondness for strong drink. There is no doubt that the man was eccentric, but that he "died a drunkard" has only been surmised. Mr. Cyril Davenport, who was probably the greatest Roger Payne expert, doubted this alleged fact and offered an interesting refutation.⁶⁶ He pointed out that if Payne had been an habitual drunkard he could never have cut his beautifully delicate small tools nor could he have used them with such precision, for both tool cutting and gold tooling require the most amazing steadiness of head and hand. It is known that Richard Weir, who was Payne's assistant for about eighteen years, was given to intemperance, and it is possible that Payne may have been led astray by his associate on occasions, but if he had been an habitual user of "barley-wine" or other intoxicants, he certainly could not have continued to turn out work that exhibits such a sure and steady hand. Dibdin, who describes Payne as an habitual drunkard in his *Bibliographical Decameron*, offers no conclusive proof of his contention. It is possible that Payne's own humor may have fanned the flame which injured his reputation, for he was given to writ-

ing observations on his bills or on notes which he tucked in with his bindings. He bound a copy of Barry's *Wines of the Ancients*, and on it he wrote:

*Falernian gave Horace, Virgil fire
And barley-wine my British muse inspire.*

This little jest might well have set tongues wagging. Although Roger Payne was apparently a weak and possibly a slovenly man (a reputation that seems to have been overemphasized), in all probability he does not merit the representation of his personality that has been bestowed upon him. In the reproduction of an etching of Payne, the broken wall of his workshop and his tattered clothes could easily have been due to the artistic license of the etcher seeking to depict such an eccentric individual as Payne was known to be. Since the etching was made after Payne's death, it cannot be considered a portrait (see Plate 59).

Roger Payne not only designed and cut his own tools and created the designs for his bindings, but unlike Berthelet and Mearne in the previous centuries, he did most of his own work. He was set up in a small workshop in London about 1768 by his friend Thomas Payne, a prosperous bookseller, who, though no relation, befriended him all his life and cared for him when his health began to fail after about twenty years of hard work.

Payne employed his own brother Thomas to assist him with the "forwarding" of his books during the first six years of his career as a binder, and in 1774 he took a binder named Weir (either Richard or David) into partnership. Weir was a very skillful workman who, besides being a competent "forwarder" and "finisher," was noted for his ability in repairing and restoring old books. Mrs. Weir also had a reputation for her dexterity in book restoration, and she worked with her husband for Payne. The Weirs, while in his employ, are thought to have bound several books which have been attributed to Payne, but the master's

hand probably put many touches on the work, and he may well have planned and designed all the bindings produced in his workshop. His output was necessarily very limited, but he worked for a few noted collectors, such as Lord Spencer, the Rev. C. M. Cracherode, and the Hon. Thomas Grenville. The greatest number of specimens of Payne's binding are in the Cracherode collection in the British Museum and in the Ryland Library in Manchester, which contains the Lord Spencer collection. In this latter collection are many bindings by Charles Kalthoeber, who was an imitator of Payne and who bound for George III. Curiously enough, Payne was never made a royal binder.

Payne was most careful and precise in all matters connected with his work. He chose his leathers with great care and was the first to use straight-grain morocco, which he originated and produced by dampening the leather and then "boarding" it in one direction (rolling it one way). This is a process that was afterward copied by the leather manufacturers. He used morocco in various colors, among which was a greenish gray, sometimes described as olive, that is peculiar to him and is evidently a color he managed to make himself. Payne used mostly straight-grain morocco and russia leather. The russia leather he always "diced" by ruling it with diagonal lines. His headbands were made over flat vellum strips with green silk thread and his lining papers were the sole features of his work in questionable taste. They were usually mat-surfaced purple papers and rather thick, though he used several other colors equally unattractive. His books were heavily lined up in the back and therefore did not open easily. This was a natural consequence of the sound binding method used by Payne, though one would expect a binder of his inventiveness to have overcome this difficulty if it could be done without sacrifice to structure.

Payne's tooling, which was almost impeccable and very brilliant, makes it easier to detect the work of his imitators, for few

English finishers attained his skill in tooling. All his tools were small, except his heraldic devices. Many of them were cut in dotted outline, or pointillé, which Le Gascon originated, but the designs were drawn by him and most of them are entirely original. Even the compound pointillé curve, which is very like a Le Gascon curve, has an unmistakable Paynesque quality.⁶⁷

Roger Payne's greatness as a designer of book decoration lies not only in his creative ability but in his eclectic selection and artistic arrangement of his tools in making up a design. It was he who like Derome, first used small single tools so successfully and with such delicate charm in making elaborate borders, instead of using an engraved roll for the purpose as had been the previous custom in England (see Plate 60). His rectangular and square corners, which were later imitated by Cobden-Sanderson, are purely original, and the manner in which he edged his triangular corners with wavy outlines is refreshingly distinctive (see Plate 61). When he left the sides of his book quite plain, he tooled the spine with a solid effect, using very small tools, and he tooled not only the panels between the bands, but the bands themselves. On the leather covering the fore-edges of his boards, he often tooled diagonal lines for a space of an inch or two from the corners. In his elaborate designs he left undecorated even larger spaces than did the Mearne and most other binders, so that his beautiful leathers were utilized to give a certain *éclat* to the book cover. He always showed consummate taste and much reserve and finesse in his designs, and his versatility seems to me to exceed that of any other English binder.⁶⁸ There appear to be many figments of imagination in regard to noted bookbinders, but none more lacking in proof than those about this physically frail binder, poor in material possessions, talented and rich in artistic endowment, and withal a painstaking, honest workman who created many beautiful bindings.

After Roger Payne's death there were a number of German

binders who settled in London and worked after the manner and style of Payne, among whom were Baumgarten, Stagge-meier, and Kalthoeber. This last-named binder revived the art of hidden paintings on fore-edges and appears to have been a talented workman. Then there were Lewis and Herring, both imitators of Payne's style, who did excellent work technically but who lacked the genius inherent in Payne.

I have already referred to the universal waning of originality and the perversion of sound structural methods prevalent in the art and craft of binding in the nineteenth century, but there were some excellent "trade binders" in England during this time, such as Bedford, Revière, and Zaensdorf, who, though they sometimes indulged in bad practices in construction, were all binders of technical skill. They bound books in the Edwardian style with great care and finish, and their work exhibited a certain conventional elegance that is pleasing, if not too inspired. Later Sangorski and Sutcliff became the popular trade binders of London.

It was Mr. T. J. Cobden-Sanderson who exposed the faulty work of English binders of his time. He set an example of sound workmanship and inspired his followers with high ideals, encouraging them to attempt to express themselves in an original manner. This binder's work is too well known to need detailed description. His few simple flower tools were designed by him directly from nature, and he used them with good taste and in a manner which, if not altogether original, was at least very distinctive (see Plate 62).

Both Mr. Cobden-Sanderson's work as a binder and his virile and interesting personality attracted to him many followers and devotees. Among them was his pupil of greatest distinction, Mr. Douglas Cockerell. Mr. Cockerell continued his master's practices in forwarding, adding many innovations of his own, for he has always been an extremely inventive craftsman. This was

shown not only in his forwarding but in his decoration as well, since he developed a manner of ornamenting his books quite as distinctive as that of his teacher (see Plate 63). Since his semiretirement as a binder, he has shown his urge for experimenting by evolving a new style of marbled end papers and by having white leather prepared with lime, somewhat after the fashion of Berthelet. The work of the firm of Douglas Cockerell & Son was carried on before the war by Mr. Cockerell's son, Sydney Cockerell, and Roger Powell, a partner.*

Mention should be made of several English women binders, among them the late Miss Sarah Prideaux, one of the pioneer Englishwomen in the craft in recent years and an able scholar and writer on the history of binding. Then Miss MacColl deserves recognition for her ingenious invention of using a very small wheel for tooling small curves. Miss Woolrich is another woman who has turned out very creditable work in the past, and Miss Katharine Adams (Mrs. Webb) has recently scored considerable success in the binding world. One of the English women binders to break away from the convention in design is Miss Madeleine Kohn, who has exhibited some bindings designed in a manner departing from the traditions of the past.

It has been frequently affirmed that the English have been unoriginal in their decoration of bindings — that they are not creative but imitative. I think it is undoubtedly true that they created few styles in binding that were totally original, but they certainly have had a way of putting a truly English stamp on their designs, even on those where traces of foreign influence are quite obvious. If there were space I could illustrate my contention by pointing out the distinguishing differences between a Berthelet design and one of some Italian or French binder whom Berthelet is said to have imitated. A comparison of the designs of the Mearne binder with those of Le Gascon would be equally

* Since this book was written word has come of Mr. Cockerell's death.

fruitful in proof of this point. Almost every binding of English origin is recognizable by something about it that is thoroughly and peculiarly English, and I think that the English have rarely been slavish imitators in any period of bookbinding. It would be strange indeed if foreign influences had not crept into English art, as they have done in Italian, French, and German.

We hear it said that Mearne copied or imitated Le Gascon. But one wonders whom Le Gascon imitated. The saying that there is nothing new under the sun appears to be so. Le Gascon got his idea for his curves and his little flowerlike forms from somewhere, and certainly not from nowhere. Then he dotted these curves and the flower petals instead of using them in continuous line. So it is, Le Gascon adapted the curve and the flower form to his use and modified them by breaking up the solid outline. Or geometrically speaking, the line of continuous dots became a line of interrupted dots, and a new style of tool was created. Then the Mearne binder appropriated these modified, or dotted, curved tools and flowers of Le Gascon's and used them in his designs, changing the outlines in some instances and using the tools not as Le Gascon had used them, but in a Mearne manner. And so goes the story of borrowed ideas. In the last analysis, all ideas seem to be borrowed, and often stem from an unknown source, but creation takes place in using these ideas and forms in a different and a new manner.

It is difficult to say what is "original" in design. It is equally difficult to define "creative," and yet we use both these adjectives with a great deal of gusto and authority with reference to design. When one pauses to analyze the designs created by Le Gascon, the Mearne binder, Nicholas Eve, Roger Payne, and others, I think it is evident that each one is in some way entirely different from the others. There may be actual borrowing of tool forms, and even similarity of arrangement, but what constitutes originality is the question. If everything about a design must be created in order

to be stamped or labeled "original," then there are no original designs, for everything starts from something and that something must have existed before it could be used.

I do not mean to be academic in discussing this subject, but it would seem as though there has been a great deal of blithe labeling of "unoriginal" and "uncreative" in the field of appraising art in book decoration. In consequence, considerable injustice has been done, in my opinion, and because of these arbitrary taboo labels much beautiful work has been passed up as unworthy and has not been appreciated or impartially evaluated.

The question is: Must a thing be entirely new in order to be beautiful? If so, there is no beauty, for, again in the last analysis, there is nothing absolutely and entirely new. I take it that beauty does not reside wholly in newness. There is a law outside of time which governs form, and I believe that beauty resides largely in form.

SCOTLAND

There is not a great deal known about Scottish binders prior to the last part of the seventeenth century. In the time of James VI, John Gibson of Edinburgh was the royal binder, but no particular bindings can be definitely attributed to him, though in records of his bills he describes his books bound for the King as "gylt," "in vellum," and "in parchement." There was a binder by the name of John Norton, who bound books for the King "with velvet coverings," and one named Robert Barker, who bound "in Turkie leather" and "vellum." But which books they bound is not known.

The style of decoration used on bindings for James VI was characterized by "semis designs" made up of small stamps, such as thistles, fleurs-de-lys, small tridents, surrounding a center royal escutcheon, and with narrow decorated borders. Among the best examples of these bindings is the Pontifical of 1595. It is tooled with a large semis design of alternate thistles and fleurs-

de-lys interspersed with a smaller tool. The narrow border consists of flowing decorative curves, and the back is smooth and is decorated the full length with small tools, except for the title space. In the center, almost buried in the semis, is the royal escutcheon with the arms of Scotland and Ireland. It is probable that John and Abraham Bateman were the binders of this imposing folio binding.⁶⁹ This Scottish style of binding is apparently in imitation of the Louis XIII semi designs.

Some of the ordinary bindings are decorated with oval centers of strap and scrollwork in a semis field of small floral sprays. Many of them have rather banal corners of overbearing proportions which add to the heavy elaborateness of the design and mark them as trade bindings. They represent a showy but unimaginative type of decoration.

During the eighteenth century the Scottish designs were lighter, suggestive of the Mearne and Payne styles. One recognizes the Payne small tools and rosettes and the Mearne mounds of curves and branching leaves. Four excellent examples of this style will be found in Quaritch's *Facsimiles of Book-bindings*. The small dots and tools used produce an effect of great brilliance in these designs, but they are rather stiff and overelaborate.

Since James VI of Scotland was likewise James I of England, I think there has been a tendency to class much of the Scottish work of his time with the English. It may be possible that, after further research, many so-called English bindings will be found to be the work of Scottish binders.

IRELAND

The Irish had a custom of keeping their early manuscripts in book boxes called *cumdachs*, or *book shrines*, and instead of decorating the covers of their bindings, they usually left them plain and lavished all their imaginative art on the boxes in which the books were kept, merely bestowing upon these written religious

books a limp leather cover. I shall discuss cumdachs and book satchels later under Miscellanea.

There were noteworthy exceptions to the Irish plain bindings, but there have been identified only a very few Celtic bookbinders who ornamented their bindings in something of the styles they used in decorating their cumdachs. Dagaëus, a monk living in Ireland during the sixth century, is said to have been not only a skillful scribe but a bookbinder as well. And in the ninth century an Irish monk by the name of Ultan was made mention of in a letter written by one Ethelwolf, of Lindisfarne, to Bishop Egbert.⁷⁰ Ultan was praised in this letter for his accomplishment in producing beautiful bindings. These early Irish bindings were covered with gold and silver, studded with jewels. There are few intact examples of them extant, though fragments of early Celtic bindings are preserved, the largest number of which are found in Irish museums.

An example of a Celtic book cover is found on a MS. of *The Four Gospels* frequently referred to as "The Gospels of Lindau." This MS. was discovered in the Abbey of Lindau on Lake Constance, and after having been bought by the Earl of Ashburnham and taken to England, it was later added to The Pierpont Morgan Collection, where it is now known as MS. No. 1. The upper cover of the binding is thought to be of ninth century workmanship (*ca.* 875) and is considered one of the finest specimens of Carolingian work in existence (see Plate 64). The Celtic decoration on the lower cover represents a beautiful example of artistic workmanship, also of the ninth century (*ca.* 825-850), possibly executed at St. Gall, Switzerland, by an Irish emigrant to the Continent⁷¹ (see Plate 65). This cover is an example of the art of the jeweler and metalworker, containing a large beautifully designed gold patée cross covering almost the entire side of the book, which is studded with garnets and enamels in colors. In this connection it may be noted that Ireland had native jewelers

and enamellers of great repute at an early period, and it is not improbable that their services were in demand beyond the borders of their own country.

Celtic interlacings are found on extant Irish *polaires*, or book covers, which were ornamented with designs executed by means of hard styles or by impressing ornamental stamps on their surfaces.⁷² These bindings were of course later than the metal jeweled cover of the Lindau Gospels.

In the eighteenth century some handsome and gracefully designed bindings were produced in Dublin, usually in red morocco inlaid with large diamond-shaped centers of white or cream-colored leather, richly tooled in gold. Irish binders continued to produce very creditable work in binding, under the English influence, from the time they began to practice the art of gold tooling. They have always shown much taste and skill in their work (see Plate 66).

LOW COUNTRIES

The Low Countries occupy the same position in regard to originality and beauty of stamped bindings as the French do in gold-tooled decoration of books. The panel-stamped bindings produced in the towns of Flanders are incomparable. They exhibit an imagination and beauty in design, a style, and a skillfully developed technical excellence that is unsurpassed.

The creative conceptions shown in the imagery of the early art of the Netherlands has a peculiar storytelling quality that evokes delight. It is apparent in all the art emanating from these foggy, mist-enshrouded countries — in paintings, choir stalls, silver boxes, and even in the small trinkets that were made. That this vividly imaginative quality which was shown by these artists repeatedly in their designs for book covers should have left its imprint on bookbinding design throughout most of Western Europe is not surprising.

Panel-stamped bindings which originated in Flanders sometime after the middle of the fifteenth century and continued to be made there until the latter half of the sixteenth century offered an ideal opportunity for the play of imagination. The idea of panel stamps was appropriated by binders outside the Low Countries, and we find stamped bindings with panel designs coming from Holland, several parts of France, England, and Germany, as well as from Flanders. Most of the Flemish panels were too small to cover the whole side of a large quarto or folio volume, and they were therefore repeated on the cover as many times as was necessary to complete a full design sufficiently large in scale to be appropriate to the size of the book (see Plate 67). These designs had to be registered just as the designs of the goldsmiths were registered, and the facsimiles of them were kept in the guild archives, as were the trademarks of merchants, in order to protect them by law from being reproduced. They could not be used by anyone but the designer unless they were changed in some way.⁷³

There were probably few professional bookbinders in the towns of the Low Countries before the fifteenth century. All the binding was done in the monasteries, and by the lay clergy. The principal binders of Flanders were in the abbeys of the Augustinians at Bruges, Ghent, Louvain, and Utrecht, in the houses of the Crutched Friars at Namur, and in those of the Brothers of the Common Life at Ghent, Brussels, Wesel, and elsewhere. The binderies in the university town of Louvain produced some interesting bindings as early as the last quarter of the fifteenth century, but owing to the large-scale destruction of the Louvain archives in World War I, there will be, unfortunately, no further possibility of identifying bindings from this source. One of the panel stamps often found is attributed to a Louvain binder who signed his bindings IP⁷⁴ (see Plate 68).

The earliest Bruges binder appears to be James van Gavere

(1454-1465), probably of the family of the same name which migrated to England. Several of his bindings are described in detail by Weale in his *Bookbindings and Rubbings*, pp. 158-206, as are those of other Low Country binders, of which there were many. The earliest dated panel (1488) is one owned by Jacques Moerart, a native of Flanders who became a bookseller and printer in Paris.⁷⁵

A great variety of spiral panel stamps, horizontally placed, were used in designs. These designs contained foliage, fruits, birds, beasts, and many other subjects, which were often enclosed in circles and were surrounded by a border containing some legend. In a single Bruges design are found a stag, a hound, a lion, a unicorn, a monster, an angel, two Tritons, and a monkey and the Holy Lamb with cross and banner. This seems a weird combination, but the Bruges artists were equal to resolving such diverse and incongruous subjects into most entrancing designs. The people of the Low Countries possessed a talent for expressing their fantasies in pictures that were alive with meaning and harmonious in effect, no less in art than in literature. Of all the Flemish panels those of Bruges and Ghent are the most beautiful.

There were three noted Bruges collectors, Philip, Duke of Burgundy, Louis Grunthuse, and Mark Lauweryn. The Duke of Burgundy's books were usually bound in velvet. Those of Louis Grunthuse, who was a friend of Edward IV of England and a patron of the Bruges printer Colard Mansion, are said to have been mostly rebound. Mark Lauweryn, of Watervliet, was the most famous of the three collectors. His binder has not been identified, but many of his books were bound in the style of Grolier and bore the ET AMICORUM label, together with his Latinized name Marcus Laurinus, and one of his mottoes. His collection passed to his nephew Mark, who was a collector of coins and medals and who was banished from his estate just outside of Bruges in 1578, when his palatial Renaissance residence

was destroyed by order of the Bruges magistrates because of anti-Catholic prejudices.

I have already remarked that many of the tools used in England were brought over from Holland and Flanders by workmen who emigrated to that country and settled there. The van Gavere family from Ghent and the van der Lendes of Bruges were among the number who introduced Low Country designs on English bindings, though there were other Dutch and Flemish binders working in England in the late fifteenth and early sixteenth centuries.

It has been said that during the period between 1400 and 1550 "in all matters pertaining to books, England, Belgium, Holland, North-western France, and the German provinces of the Lower Rhine and Westphalia formed one region of more or less uniform or at least closely related character,"⁷⁶ but certainly very strong local characteristics in bookbinding may be discovered in the various countries just mentioned. However, bindings produced in England at that time were often in the style of the Low Countries, and the Flemish influence is strongly evident in the panel-stamped bindings of Cologne, which resemble closely those produced in Bruges, Ghent, and Louvain. It would seem as though the influence of the closely related countries of France and the Low Countries was the most dominant in the matter of book decoration in the fifteenth and the early part of the sixteenth century.

Panel bindings were likewise produced in Holland, but they were less attractive than those made by Flemish binders. However, the Dutch appear to have had excellent binders, and one, Magnus of Amsterdam, working in the seventeenth century, was a very skillful gold tooler. He was probably the most successful imitator of Le Gascon. This talented binder evidently had many clients, among whom were the Elzevirs, the Dutch family of

celebrated printers, whose workshops in Leyden and Amsterdam had a tremendous output.

Belgium has continued to foster the craft of binding down to the present time, but there are few binders there who do work of exceptional excellence. Professor Henry van de Velde, who was Director of the Institut Supérieur des Arts Décoratif in Brussels, made a great effort to stimulate the Belgian binders to forsake conventional decoration of books and follow in the footsteps of the more recent French binders, but without marked success. René Laurent was one of the best Brussels binders who did modern work before World War II, and de Doucker was another Brussels binder who specialized in binding books in the antique style, similar to Mercier of Paris.

In Holland at the end of the nineteenth century there was a small group of excellent binders like John B. Smits of Haarlem, S. H. de Roos in Amsterdam, and J. G. Loebèr who decorated their books in an unconventional manner. Later followed a number of young binders who went to Paris and London for further training. And after the war, in 1921, a movement was started in Holland to stimulate interest in modern hand binding, resulting in the formation of a society called the "Boekband en Bindkunst." A. M. Oosterbaan, P. d'Huy and Jan Wansik were among the well-known binders at that time. Craft schools put in courses of bookbinding, and J. H. J. de Vries, A. M. Kupers, and D. N. Esveld taught in the Amsterdam school, while Professor Oosterbaan was an instructor in Utrecht, and F. Mesman in Rotterdam. These schools turned out pupils who produced some very creditable work, among them several women whose bindings have been in a number of exhibitions in Holland where one might find represented the work of Geertruid de Graaff, Annie Abresch, Elizabeth Mendalda, and of several other women. Doubtless, if Holland continues to stimulate interest in the craft

of bookbinding and gives that craft an important place in the curricula of its craft schools, we may hope to see developed a national type of modern book decoration in that country. A comprehensive survey of modern bookbinding in the Netherlands, written by Elizabeth Mendalda of Amsterdam, will be found in the *Jahrbuch der Einbandkunst* of 1928, pp. 187-192.

GERMANY

Germany is especially distinguished for the great variety and excellence of decorated bindings produced by her binders in the fifteenth century, and fortunately there are a large number of specimens of this work extant. In fact, the greater proportion of monastic bindings still surviving are of German origin.

It has already been noted that in France many old bindings were deliberately destroyed at the time of the Revolution, and it is a matter of record that England suffered a like fate during the reign of Henry VIII and through the fanaticism of the Puritans. On the other hand, only in the center and the north of Germany was there any great destruction of monastic bindings during the Reformation. Along the Rhineland, in Bavaria, Austria and Westphalia, the monasteries escaped the wrath of the reformers, though later, at the beginning of the nineteenth century, the wealthy Bavarian abbeys were suppressed, and the valuable old bound manuscripts reposing in their libraries were dispersed. Then, too, in Germany as in France, a factor which reduced the number of examples of early bindings in their original condition was the disregard of their artistic and historical value by those who did not hesitate to mutilate them in order to fit them into their baroque libraries (see Plate 69).

Nevertheless, the partial escape from wholesale destruction is one reason why German fifteenth century bindings are so numerous, and an added reason is that in the fifteenth century probably more bindings were produced in German monasteries

than in any other monasteries of Europe. Among the surviving specimens, south Germany is represented with a greater number than north Germany, and this is probably due to the fact that fewer south German monasteries were despoiled, though it is quite possible that the southern monastic binders were more numerous and more productive.

As Dr. Goldschmidt's work *Gothic & Renaissance Bookbindings* is the most comprehensive treatise on the subject written in English, I shall make it the chief basis of my observations on German bindings of this period, linking the Austrian and Bavarian. It is both because of its scholarly approach and because of its convenience as a source of information for augmenting the following brief summary that I have chosen it as the main nucleus of reference on this period of German book decoration.

German bindings of the fifteenth century were of two distinct types — the one stamped and the other cut leather or cuir-ciselé. Because of the peculiar excellence and profusion of stamped bindings produced in Germany, I shall outline the distinctive characteristics of the various types of decoration representative of certain bookbinding centers in that country (see Plate 70).

In common with all other stamped bindings, those produced by the Germans have wooden board sides covered with leather, and the earliest specimens are decorated with blind lines which divide the whole cover up into compartments. To decorate these compartments a variety of stamps was used, ranging from simple floral subjects to animals and grotesque figures. It is by means of identifying these tools with a certain region or a particular binder, if possible, and by noting peculiar characteristics and the general plan of dividing up the design into spaces that the origin of bindings can often be established. For example, many of the bindings made either in the monasteries or by binders working in the towns near Cologne and in the vicinity of the Lower Rhine may be recognized by their boards, which are beveled.

This is a singularly distinguishing characteristic, since it seems to have been confined almost entirely to this particular region (see Plates 71, 72).

The Erfurt bindings may be recognized by the scheme of decoration used, which follows the plan of dividing up the whole of the book cover by a double border which encloses a long narrow panel. The outer border is narrow, with a broader inner border separated from it by several parallel lines. Parallel lines also outline a center panel. All the lines, horizontal and vertical, cross near their extreme ends and form squares at the corners of the cover. The central panel is usually decorated with a pattern composed of small, almost touching tools, and both borders are likewise decorated with a succession of tools, those of the broad inner one often being interrupted with a scroll bearing the binder's name.⁷⁷

Augsburg bindings are characterized by certain stamps, such as the heart-shaped palmette, and by large square or diamond-shaped stamps used in the spaces formed by a framework, the crossing lines of which also form square corners.

The Nuremberg type of binding is easily distinguishable by a central diaper pattern on the obverse cover made up of a floriated "ogee" tool. The panel containing this pattern is outlined by a border composed of rather large foliage designs, and in the border running across the top, the title is often lettered in large gilt Gothic letters. The reverse cover of the binding does not usually contain the diaper pattern, but is decorated in both the center panel and borders with characteristic lozenge or square tools containing grotesquely drawn animal forms.

Bavarian monastic bindings are not so easily recognizable, since they exhibit a less rigidly followed manner of decoration and more varying characteristics, but on most of these bindings a peculiar decorative motif is used, like that employed by binders from south Germany, Austria, and the Upper Rhine and Mo-

selle regions. This type of decoration is achieved by the use of a "cusped-edge stamp," or "headed-outline tool." It was adroitly used to form a leaf effect, making for great richness in the decoration.⁷⁸ Line sketches of all these distinguishable types of stamped bindings will be found in Dr. Goldschmidt's *Gothic and Renaissance Bookbindings*, pp. 18-23.

The first binder to sign his bindings with his name was Johannes Rychenbach of Geislingen. Rychenbach was the famous binder-priest who was chaplain of a church in Württemberg. He was the best known of the German clerics who bound books commercially, and he began using rolls before 1500⁷⁹ (see Plate 73). There were many binders in the university town of Erfurt, at least twelve of whom signed their names, a practice which at that time was not too common. Johannes Fogel (1455-1460) was one of these, and he is among the most celebrated of the German binders and is often referred to as having bound several copies of the Gutenberg Bible. One of these bindings, which is on a 42-line edition and which was signed by Fogel with his name in a scroll, is now in the Eton College Library. Fogel used a rope knot and a lute player stamp, and he is described by Schwenke as "Der Buchbinder mit dem Lauten spieler und dem Knöten" (the bookbinder with the lute player and the knots).⁸⁰ All of Fogel's bindings are decorated in the manner just described as being characteristic of Erfurt bindings, having the long narrow center panel enclosed in a broad border, which is surrounded by a narrow outer border, with all lines crossing at the ends to form squares in the corners (see Plate 74). Johannes Hagmayr of Ulm was a talented German binder who used a large number of beautiful small stamps and two very well-cut panel stamps. One of these panels contained figures of animals, such as apes and dragons, and the other one was engraved with fourteen birds and a dragon, enclosed within curves of foliage. The animals are copied from playing cards engraved in 1466⁸¹ (see Plate 75).

Ambrose Keller was an Augsburg binder of some repute, whose stamps were well designed and well cut.

It was at Augsburg that the first gold tooling was done in Germany, though the German binders usually decorated their books in blind until about 1540. The gold titles on their stamped books were first stamped in blind and then gilded with a brush, after the Eastern manner. The celebrated Fugger family of "baron bankers and merchants" living in Augsburg established the first important bindery in Germany where gold tooling was done. This patriarchal family had wide connections outside of Germany, and the Fuggers doubtless imported workmen from Italy to bind their large collection of books, since many of them are gold tooled after the Italian fashion of the time. Jacob Krause, binder to the Elector of Saxony, learned his craft in the Fugger bindery, and his gold tooling is considered the best produced in Germany and it is thought by some experts to rival the work of the French binders in technical perfection. Krause not only bound books in calf and morocco which he decorated with gold-tooled designs, but also bound in pigskin and he blind-stamped his designs, using both panels and rolls. While his technique was excellent, his taste was not always above reproach, for many of his designs were overelaborate and lacking in artistic balance and finesse.⁸²

Erhard Ratdolt, the celebrated fifteenth century German printer, employed several binders, and a number of liturgical books printed by him, which retain their original bindings in both calf and pigskin, still exist. They are decorated with interlacing strapwork, rosettes, dots, foliage, and birds; even a hunting scene adorns one of them. Though this may be considered a strange sort of decoration for religious books, it appears that liturgical books were frequently decorated with hunting scenes, especially by south German binders, and a twelfth century authority writes in explanation of this curious custom⁸³ (see

Plate 76). From this ancient source we learn that an allegory was built up in Germany around the Christians' efforts to convert sinners. This religious pursuit after the unrighteous is likened to the worldly sport of hunting hares, kids, wild boars and stags; and these animals are personified in this metaphorical conception by identifying the hares with the incontinent, the kids with the proud, the wild boars with the rich, and the stags with the worldly-wise. Continuing the allegory, these personified sinners are struck with the arrows of good example in an endeavor to convert them from their evil ways and are chased by the dogs of preachers' voices in order to frighten them. Thus they finally become caught in the "nets of faith" and are led to the "practice of Holy Religion."⁸⁴ This mode of allegorical expression was not confined to the graphic arts at this time but was used as well by contemporary writers.

Bindings coming from the prosperous Baltic town of Lübeck have considerable merit, but are less purely German than bindings hitherto mentioned, as their designs exhibit an admixture of influences due to the proximity of this "free city" to northern countries. The saints of the Netherlands and the floral ogee-shaped motifs of Nuremberg, as well as the winged gryphon of Scandinavian art, are all used by the Lübeck binders in book decoration.

The towns and monasteries in Germany that produced fifteenth century bindings are too numerous to mention in this slight sketch. The subject, if dealt with at all comprehensively, even using the incomplete available data, would require at least a full volume or more, and I have merely attempted to mention a few of the most celebrated binders and to refer to several outstanding types of stamped book decoration coming from some of the chief sources of German stamped bookbindings of the period.

It should be noted that the regional types of bindings just described are representative of the production of binding both by

the monks in the monasteries and by the lay binders in the towns. The two towns conspicuous for the quality and quantity of their bindings are Nuremberg and Augsburg. Many of the monasteries had their own special stamps of identification, bearing religious emblems and names of their patron saints, some of which were elaborate and interesting. Reproductions of these stamps are shown in several books listed in the appended Selected List of Books.

The Germans were doubtless the greatest masters of the art of *cuir-ciselé* as applied to book decoration. This technique was probably not practiced for more than one hundred and fifty years (about 1350-1500) and was confined to certain localities. Most of the extant examples come either from the southeast of Germany or the adjacent countries eastward, that is, from Franconia, Bavaria, Lower Austria, Bohemia, and Hungary.⁸⁵ The finest work of this kind produced in Germany comes from Nuremberg and apparently, for the most part, from the workshop of a single artist, who has been identified as a Jew from Ulm by the name of Mair Jaffe, or Meyerlein (little Jew).⁸⁶ According to a Nuremberg decree of 1468, permission was given a certain "Meyerlein, Jew from Ulm" to remain in Nuremberg for a specified time, and Mair Jaffe has been identified with this Meyerlein mentioned in the decree. This talented Jewish artist-binder bound a Hebrew Pentateuch manuscript, now in the Munich State Library, which was decorated with beautifully designed animal figures; and he also bound books for wealthy Nuremberg patricians. The Jewish *cuir-ciselé* binders excelled all others in this particular art of book decoration, and in spite of the known restrictions imposed on the Jews at this time, they were evidently not prevented from competing with Gentile binders in practicing this art in Germany, for a large proportion of the earlier *cuir-ciselé* bindings were the work of Jewish artists. It is notable that none of Jaffe's bindings contain any Christian symbols, but they

were decorated with heraldic and ornamental designs composed of unicorns, flowers, hounds, and other motifs of like nature.

Panel stamps were rarely used in Germany until after 1550. The earlier panel-stamped work coming from the Ulm binder Johannes Hagmayr, to whom I have referred as having copied his animal figures from playing cards, is an exception. However, after 1550, panel stamps came into general use in Germany, but many of the designs are not especially inspiring. They exhibit a sameness of character, and frequent use was made of such subjects as allegorical figures and portraits of famous men. The panel bindings coming from Cologne are the most imaginative, showing somewhat the influence of the Flemish binders, though few of the designs on these German bindings compare in imagination and artistic treatment with those of the Low Countries and France. While panel stamps made it possible to achieve almost the entire decoration of a book cover with one single impression, thus saving much time and labor, I imagine they were not mere laborsaving devices, as they seem to represent in great measure an attempt on the part of the artist-binder to express greater freedom and originality in the decoration of books than could be arrived at by merely repeating set tool forms. The designs of German artists were frequently copied by the makers of panel stamps, but it is interesting to note that a reproduction of a Dürer design appears only once on a German binding. It is on a sixteenth century binding in pigskin with a panel reproducing the woodcut title page of the 1511 edition of the Little Passion, and it is dated 1577.⁸⁷

German sixteenth century unidentified bindings often display beautiful workmanship and designs, and those with coats of arms in the center are frequently of historical interest (see Plate 77). Others, even though they may not be unique in design, exhibit great perfection in technique (see Plate 78). When the German binders began to practice the art of gold tooling, they pro-

duced some bindings decorated in a simple and charming manner (see Plate 79).

About the middle of the sixteenth century the Germans developed a new kind of engraved roll for decorating their books. Instead of having an uninterrupted design on the entire cylinder which they used for impressing the leather with decorative motifs, they divided the surface of this circular wheel, or roll, into segments, and engraved a separate motif on each segment. This lent an entirely new character to the designs, and in consequence, they became less flowing and more compartmented. Some of these rolls bore the signature of the artist or of the bookbinder.

After the sixteenth century, when Jacob Krause produced gold-tooled bindings of great technical excellence, there were no outstanding German binders until of a very recent date. However, some German bindings were produced in the seventeenth century that compare favorably in technique with those of other European countries (see Plate 80). The Germans evidently neglected the craft of bookbinding for a long period of time. They were of course occupied with one war after another, and both internal dissensions and strife with neighboring countries kept Germany in such turmoil that peaceful arts and crafts had little opportunity to develop. The art and craft of bookbinding ceased to flourish, and a strange indifference about reclaiming her position in the world of bookbinding persisted in Germany longer than in either France or England. Even at the beginning of the twentieth century there were no binderies in Germany turning out such creditable work as was being done in these other two countries. The German craftsmen were clumsy in their forwarding, and they exhibited the most wretched taste in decorating their bindings. It was not until the technical schools in Germany turned their attention to the craft of binding that bookbinding began once again to exhibit some of the talent inherent in the Germans. This movement started shortly before World

War I and was accelerated after the collapse of the monarchy. Technical schools were financially supported by the government with liberal allowances, and binders were sent to England, France, and Switzerland to perfect their craft in order to teach in these schools. Rigorous rules regarding the length of apprenticeship were enforced, and no binder was allowed to practice his craft until he had qualified under stipulated regulations and had received his diploma, which entitled him to set up an establishment as a bookbinder or to teach his craft.

Eight years of training were prescribed in Germany in order to become a bookbinder. First, there were four years spent in a workshop as a pupil, during which time the learner received a very small stipend. Then, after the four years were completed, the worker came up for an examination in one of the technical schools, and if he qualified, he was made an apprentice and was given a certificate entitling him to finish his training. This training had to be completed partly in a workshop as an apprentice and partly in a technical school. After another four years he was allowed to come up for a second examination before a commission of the so-called "Handwork Chamber," and if he passed this test successfully he was made a master binder, received his diploma, and was allowed to practice the craft of binding. This system of apprenticeship is similar to that used in both France and England, though the term of training has recently been only seven years in these two countries, and there is less regimentation.

It is very evident that the thoroughness with which the Germans attacked the situation with regard to the craft of binding in their country during the first quarter of this century has been most fruitful of results. Once again German binders' names have come into prominence, and German bindings of great merit may now be found in international exhibitions. In regard to both forwarding and finishing, as well as to design, the modern German binders are turning out excellent work. Not only with

reference to the extra hand binding, but in the job and trade bindings as well, standards in construction and design have been noticeably raised.

Probably the two best-known German hand binders of the present time are Otto Dorfner and Ignatz Wiemler, both professors in craft schools and binders of repute (see Plate 81). Then there is Professor Weisse, who was formerly director of the Hamburg Craft School, and Professor Joseph Hoffman, in the principal technical school of Vienna, both of whom have contributed greatly to the furthering of better binding methods in Germany and Austria. Paul Adam is another German binder who merits distinction, not only as a binder but as a teacher, scholar, and author, and Bruno Wagner of Breslau has exhibited some interesting bindings, as has Otto Pfaff of Halle, who has broken away from the traditional in his designs.

The craft of binding has quite a large following among women in Germany, several of whom have been partially trained in England. Among the women binders of southern Germany who have exhibited some interesting and distinctive bindings are Frieda Tiersch, Frau von Guaita, Frl. Lederhose, and Frl. Jacob. Frl. Ascoff and Frau Frieda Schoy, who have their workshop in the vicinity of the Rhine, are talented professional binders who have gained a reputation for expert work. Without question, the German binders have recently been asserting their ability to take a distinguished place in the art and craft of bookbinding.

HUNGARY

Hungary is especially noted in the world of books because of its famous royal bibliophile, King Matthias Corvinus, who reigned from 1458 to 1490. This collector was a learned man and a patron not only of the art of bookbinding but of other arts as well. He brought together an extensive library of manuscripts and had books transcribed and illuminated especially for him

by Italian artists, such as Attavante degli Attavanti and other celebrated Florentine miniaturists. The Italian Renaissance masterpieces which he collected rivaled in beauty and magnificence the famous collections of the Medici and the Urbino dukes, and Corvinus built a library fitting in elegance to hold his treasures, which were placed on elaborately carved shelves of the finest workmanship and protected by gold-embroidered velvet curtains. After a time, this bibliophile king brought to Hungary the most skillful scribes and talented miniature painters from Italy and created a scriptorium in his own palace at Buda for them to work in.⁸⁸ Such was his enthusiasm and love for the art of bookmaking and binding that he also established a bindery workshop in his palace.

In 1526 the famous Corvinus library was pillaged, many books were burned and others were carried away to Constantinople. Most of those still existing are now in Vienna, though a few are to be found principally in Germany, Paris, and Venice. A small number were returned from Constantinople to Budapest and are now in the National Hungarian Museum. There is at the present time a movement on foot to have some of the Corviniana MSS. returned to Budapest.

Since the discoveries about the origin of gold tooling resulting from the scholarly researches of Dr. Gottlieb and Baron Rudbeck, which have been passed on to the English-speaking world by Dr. Goldschmidt with valuable deductions, King Corvinus has grown in stature and importance to the student of bookbinding. It has been substantiated that this royal bibliophile had the knowledge and the sagacity which prompted him to import from Italy binders who understood an art of book decoration that had hitherto not been in general use anywhere in the world. These workmen, in all probability from Naples, understood this new art of tooling book covers in a manner that is generally characterized by the French term "*à petits fers*," namely, by the use of

heated tools impressed by hand over gold leaf. Most informed authorities have concluded that the art of gold tooling à petits fers as distinct from gilding with a brush in the Oriental fashion was introduced from Spain into Italy at Naples. So it appears that this connoisseur of art discovered that a superior kind of book decoration was being practiced in Naples and therefore imported workmen from that town to decorate the bindings of his priceless manuscripts in the new manner, before the method was generally practiced elsewhere. Since King Corvinus had married Beatrix, the daughter of Ferdinand of Aragon, King of Naples, it is not surprising that he should have discovered the new art of gold tooling in Naples, for he certainly must have visited that city frequently, on account of his connection by marriage with the King, who was also a scholar and a book collector. The whole story woven about this Hungarian king forms a romance of significance in the history of bookbinding and certainly adds prestige to Hungary.

The Corvinus books were bound in velvet or morocco leather. They were often decorated with colored leather inlays, inset cameos, or colored enamels. Some are rather Oriental in character and others are in the Italian style of the period. All exhibit the most expert workmanship.⁸⁹

It seems probable that the Italian workmen in the Corvinus bindery trained native helpers to assist them, and thus gold tooling was learned and practiced at an early date by Hungarian binders. There was apparently a generally high level of workmanship in Hungary, and the intermixture of gold tooling with the added color and luster introduced by the Oriental enamel technique made for a splendor peculiar to book decoration in Hungary at this time. But it must be remembered that this art was imported and that it was chiefly practiced by foreign workmen at this early period. The native Hungarian workmen who learned from Italian binders to tool books in gold continued to

follow foreign models, and no national style was evolved. Apparently the Hungarian binders have never succeeded, certainly up to recent times, in developing a style of book decoration entirely free from foreign influence.

POLAND

The Jagellonic Library in the University of Cracow and the Czartoryski Museum, also of Cracow, contain many bindings of Polish origin that exhibit some excellent fifteenth century work and a variety of artistic designs. These bindings are similar to the German bindings of the period. Both the stamps used and the character of the designs display rather generally the influence of German binders, though Italian influence also is apparent: This latter influence is shown in the use of gold tooling at a time when blind stamping was prevalent in that part of Europe, and in the use of certain Italian tool forms.

The early penetration of the art and technique of gold tooling into Poland, before they were practiced to any extent outside of Spain and Italy, is doubtless due to the proximity of Poland to Hungary. Following the reign of Corvinus, Poland, Hungary, and Bohemia were united under one king (1490-1516). Budapest was the political center of these three countries, and Cracow was the center of learning and book production. With this in mind, it does not seem strange that the technique being practiced in Budapest in the Corvinus bindery should have found its way into Cracow, where the art of binding was well advanced. The Poles not only practiced the arts of blind stamping and gold tooling on their bindings, but evidently also used the *cuir-ciselé* technique, which they probably learned from the Jewish Bavarian and Austrian workmen.

Judging from the Wislocki catalogue of incunabula in the Jagellonic Library, which ascribes many bindings to Polish workmen, there must have been a number of talented binders

connected with the University of Cracow in the fifteenth century.

That the Poles felt both the German and the French influence in their art and craft of binding may be partly explained by the fact that Henri of Valois, or Henri III of France, was King of Poland in the sixteenth century, as was Augustus the Strong, the Elector of Saxony, in the eighteenth century. It seems doubtful that Henri of Valois should have exercised much influence on the art of book decoration during his brief reign as monarch of Poland (1573-1574), except through his mother, Catherine de Medici, who, being an ardent lover of beautiful bindings, might well have extended her live interest in binding to Poland through her son, whom she put upon the throne. The German influence is more readily understood, since the proximity of Germany to Poland and the continual effort of Germany to take a hand in Polish affairs are well known.

The later Polish binders appear to have copied the German schools of binding in their technique, and in design they have leaned toward the traditional eighteenth century or the modern French schools until recently, when Polish binders began to design the covers of their books in a manner suggesting a national consciousness.

SCANDINAVIA

The fifteenth century Scandinavian bindings were decorated with stamps similar to those used in Germany, though some of the animal forms used show the influence of Byzantine art. Later work is after the French fashion, and the French models of tools were doubtless either copied by native tool cutters or were possibly engraved in Paris. It is reported in the catalogue of the National Library of Stockholm that Christina of Sweden, who is known to have been a book lover, imported French and Italian binders into Sweden. In all the Scandinavian countries there has been for many centuries a persistent effort to produce well-bound books.

During the middle of the eighteenth century the art and craft of binding in Sweden was flourishing, but Swedish bookbinding languished soon afterward, until toward the end of the nineteenth century. It was at about this time that Gustaf Hedberg went to Paris and London to study and work in these foreign binderies, and upon his return to Sweden he evidently stimulated the Swedish binders to work along less conventional lines. His designs exhibit no more marked originality than is shown by other binders of his time but he displayed ingenuity in making a few tools carry out his designs. Countess Eva Sparre is a noted Swedish binder who has shown originality and independence of traditional styles. Her decoration is usually simple and always in excellent taste. Miss Greta Morssing is another well-known Swedish binder who has generally bound and designed books after the English fashion.

The Danish binders Petersen and Petersen, Oscar Jacobsen, and Anker Kyser have exhibited extensively. These men have all produced bindings decorated in a conventional manner, but they have also departed from the conventional and have decorated their books with freely drawn line designs that are peculiarly Danish in feeling. Among the several women binders in Denmark producing interestingly designed bindings is Ingeborg Borjeson of Copenhagen who is noted as a maker of charming decorated end papers.

Hand bookbinding in Norway has developed as great activity as in the other Scandinavian countries. Among the most versatile Norwegian binders are Rander Naess, Signe Bjerke, and Ruth Arnes.

Just after the beginning of the twentieth century the binders in all the Scandinavian countries began decorating their bindings with simple lines, showing the influence of a modern trend in their treatment of book-cover designs. In these North European countries functionalism was stressed in architecture soon

after its conception and, in keeping with this influence, the bookbinders evidently sought to break away from the traditions of the past in decorating their books. In many instances they have become ultramodern in their free treatment of unconventional line motifs.

One often hears the term "functional design" applied to this sort of book decoration, but since functional design, as it is usually understood, must be adapted to structure, it is difficult to see how it can possibly be applied to book decoration without stretching the term illogically. Decorative art and functionalism would appear to be almost entirely divorced from each other by their very natures; the one belonging to the realm of aesthetics and the other basically bound up with utilitarianism. I fail to see how decorative art, as such, can possibly serve a utilitarian purpose in the generally accepted use of the term, and therefore how it can be construed to be functional, though it is apparent that through the manner in which structure is adapted to function an aesthetic result may be produced.

NORTH AMERICA

The field of hand bookbinding in America has been neglected by writers presenting the history of the craft of binding, and our information about the work of the early American binders is spotty and incomplete, though recently some interesting data have come to light.

As our earliest settlers came mostly from English stock, we find immigrant binders in the seventeenth century practicing the art and craft of hand bookbinding in colonial America after the fashion of their English ancestors, with modifications imposed by limitations due to scarcity of materials. However, immigrant binders came not only from England in the colonial period, but also from other foreign countries, particularly Scotland, France, and Germany. These skilled workmen influenced styles

and technique in this country, and the early work of our binders exemplifies the traditions of Western Europe, though at length American binders developed a style of binding marked by characteristics of some independence as to both technique and design.

The colonial binders had no direct legacy from monastic binderies, for they began practicing their craft after that craft had been in secular hands for nearly two centuries, but mediæval practices in general continued to be used in binding in colonial America until mechanization quickened the pace of bookbinding and made hand binders resort to various expedients in order to compete with the machine.

Most of the early American bindings were blind tooled on sheep and calf covers over wooden boards. Wood such as oak, maple, and birch was used for book covers instead of pasteboard, because pasteboard was not easily obtainable in America during the colonial period, while wood was plentiful. But these American wooden board covers were different from those used abroad on the thick folio fifteenth century volumes. Of necessity, they had to be much thinner in order to be suitable for use on the thin books first published in this country. They were scarcely thicker than pasteboard and were called "scaleboard" or "scabboard." It is obvious that these thin wooden boards were considerably more durable than the pasteboard then in general use for book covers on the Continent and in the British Isles. Not until the eighteenth century was wood superseded by pasteboard in this country for the sides of books, as pasteboard had to be imported, at least until after the first paper mill was established in Philadelphia in 1690.

The colonial binders sewed their books after the soundest method, over raised cords which were laced into the covers, but they also followed the less sound practice of sewing over rawhide thongs and sinking them into grooves sawed out in the back of the sections, in order to produce a smooth back uninterrupted by bands. When head and tailbands were used, they were usually

made of linen thread, and book-edges were colored instead of being gilded. But books were not at first rounded and backed, though this highly desirable feature of book construction came into practice somewhat later, obviating the tendency of backs to cave in.

One of the Grolier Club catalogues mentions a bookbinder by the name of John Sanders,⁹⁰ who opened a shop in Boston in 1637, though nothing further is known about him or his work.

We have no record of the fact, but it is probable that the American colonial binders were connected with printing and bookselling shops, and that books came to the booksellers of New England in sheets, as they did to the booksellers abroad, and were bound in these establishments, where tools and materials for the work were provided. Sanders may well have been absorbed by one of these firms, who employed him to bind their books.

The two early American binders most frequently mentioned are Edmund Ranger and John Ratcliff. It is known that Ranger was a bookseller as well as a binder, and that Ratcliff worked in Boston for about twenty years (1663-1682) and came from England to bind the Indian Bible of John Eliot. Ranger was the more conservative binder of the two, eschewing the use of sawn-in bands and other questionable practices that Ratcliff indulged in to the detriment of his work. Both Ratcliff and Ranger did what is termed "plain" binding as well as extra binding. In common with other American binders of their time, they used domestic sheep and calf for their plain bindings, which they decorated with blind tooling after the fashion then in vogue in this country. But they are especially distinguished for their departure from many of the usual practices. Instead of wooden boards, we find on their books pasteboard covers, which were doubtless imported, and their use of imported morocco leather, marbled end papers, and gold tooling, at a time when plain end papers, blind tooling, and domestic leather were used by other binders, serves to

entitle them to a place of pre-eminence among colonial binders. Not only did they use gold leaf for tooling their morocco bindings, but it was used by them for gilding the edges of their books, and Ranger added head and tailbands made of silk instead of linen thread, thus inaugurating new colonial practices.⁹¹

In comparison with the technique of European binders of this period, the native American binders' work was somewhat crude, though their methods of construction were for the most part sound and their bindings were characterized by qualities of solidity and a simple style of decoration that is very pleasing. Considering that many of these binders lacked long experience and had often to rely upon homemade materials that were less expertly fabricated than those manufactured abroad, their work is amazingly creditable.

An adaptation of the English panel style of decoration, known as the "Cambridge style," was used by colonial binders throughout the seventeenth century and part of the eighteenth. The tooling was in blind, and the board edges were often bounded by double lines, sometimes with a flowered roll running next to the lines, and generally with some sort of flower tool at the four corners of a central panel. This style of decoration is characteristic of bindings of this period and is to be found on bindings made by Boston, Philadelphia, and even some southern colonial binders. A colonial binding on the Bay Psalm book is shown in Plate 82.

The "backbone," or "spine," of a colonial binding was not titled or ornamented except for lines on each side of the bands, which were tooled either in blind or gold. Or when bands were absent, lines were tooled across the spine at intervals corresponding with the position of the sunken cords on which the sections were sewed. An attractive feature of these early bindings, which was almost always present, was the decoration in blind or gold on the edges of the covered boards, and the custom of decorating

the inside leather margins with blind tooling served to make the bindings less plain.

Sprinkled calf was in vogue at this time in England, and American binders used this method of achieving what was considered a decorative effect. But since acids had to be applied to the leather in the process of "sprinkling," the effect was got at the expense of the durability of the binding.

Toward the end of the eighteenth century there were bindings produced in the American colonies by workmen who had been trained in England and Scotland. These bindings display a style of decoration less simple than those produced in the earliest period. The sides and backs of the bindings were often decorated with elaborate gold-tooled designs in a manner then current in the countries where the workmen served their apprenticeship. However, the German-trained colonial binders who worked in the last part of the eighteenth century produced bindings often mediæval in character, with brass clasps and bosses and with scant decoration in blind tooling.

After the Revolution, when America had become politically independent of England, a new consciousness was manifest in American pursuits and new influences infiltrated into the activities of the Republic. France had been bound to America by close ties, and the American horizon was broadened by new contacts. Though the Republic continued to be dependent on Great Britain for much of its inspiration, as in colonial days, there was evidence in American enterprises of a wider perspective and a more virile independence. A new era came into being.

Thus we find the art and craft of bookbinding reflecting the less provincial and more independent outlook of the American mind. Hand binding began to be practiced in independent shops not connected with printing or bookselling establishments. By the end of the eighteenth century all materials necessary for binding purposes were made in the new United States, and binders

were no longer dependent upon foreign sources for their supplies. Pasteboard covers, marbled end papers, and imitation morocco leather came into general use as the rapid development of new industries produced these articles.

However, although the industrialized United States produced a flourishing craft in bookbinding, it did not improve the technique of the craft. The printing houses were turning out books in great numbers after the close of the eighteenth century, and speed became the necessity of the binder in order to meet the demands of industrialized book production. Therefore every possible means of increasing production was put into practice, often with little regard for the lasting qualities of the binding. Sawn-in backs with false glued-on raised bands were the usual order of the day. Pasted-on head and tailbands made of cloth or leather began to be substituted for those woven onto the book with silk or linen thread. Books were sewed on fewer cords, often not more than two, and even these were finally not laced into the covers but were frayed out and pasted down onto them. Nevertheless, one important improvement occurred in the disappearance of concave, or sunken, backs, for the binders began to round the backs of their books and force them into a convex shape, a technique which was necessary if a title were to be put on them successfully. While short cuts in construction were characteristic of the general run of bindings produced in America at this time, it was still possible to get a sound binding done by the extra binder, if one were willing to give him time and pay him for a substantial job.

In the matter of decoration, bindings took on a greater elaborateness after the colonies became a republic. Gold-tooled designs were substituted for blind-tooled ones, and decorative rolls became increasingly employed for a massed effect of gold tooling. These engraved rolls were often an inch wide and were used to produce a floral border running around the outer edge of the

cover (see Plate 83). But the most attractive bindings of this period, though less frequently met with, are the ones on which a center design is built up of small tools, with the book-edges bounded by a narrow roll pattern and with a small fleuron emerging from the four corners of the border. This style smacks of English and French influence, but the proportions of the designs and the general effect of unpretentiousness suggest immediately that they must be the products of less sophisticated craftsmen than those binding abroad at that time. There is no dash about the small books tooled in this manner, but there is a delightful naïveté about the designs, and the craftsmanship is excellent. In my judgment these charming, simple bindings represent more taste than any other bindings produced after the American colonies were united in a republic.

Small tools were occasionally used to make a repeat border design, and very rarely an all-over design was produced, in which both small tools and engraved floral rolls were utilized. Leather inlays appear on some bindings of this period, but that technique was practiced neither extensively nor too successfully by these binders, though colored leather labels were put on the backs of books, enhancing the attractiveness of the binding in an intriguing manner. The labels containing the title and the volume number were often quite charmingly decorated with gold tooling even on otherwise plain bindings.

Undoubtedly the immigrant binders in the colonial period brought with them tools for decorating their books, and tools were probably imported for use in colonial times. Just when they were first engraved in this country, is uncertain, though records bear testimony to the fact that they were being made in the United States early in the nineteenth century.⁹² Since type was cut in America as early as the last quarter of the eighteenth century, it seems probable that bookbinding tools were cut in this country not much later.

It appears that tanneries were established in Virginia and Massachusetts as early as 1630, and the American leather manufacturers apparently supplied colonial bookbinders with sheep, calf, doeskin, and possibly some vellum and parchment. As parchment and vellum covers are rarely found on early colonial books, it would seem as though only a small quantity of these materials was manufactured here at that time, and it is doubtful if these products were imported to any extent. From account books kept by Benjamin Franklin we learn that binders were supplied with gold leaf from Pennsylvania as early as 1820.

The great centers of printing in the United States were Boston, Philadelphia, and New York, and the craft of bookbinding flourished particularly in these cities, but there were hand binders working in various other parts of the country. I quote from Hannah Dustin French in *Bookbinding in America*: "There were bookbinders in Worcester and Salem, Massachusetts; Albany and Hudson, New York; Newark, New Jersey; Baltimore, Maryland; and Charleston, South Carolina. However, information about them is scarce, except possibly for those in Worcester and Salem."

In the eighteenth century, a Scotsman by the name of Robert Aitken was printing and selling books in Philadelphia, and though no bindings have been discovered which were signed by him, he is thought to have bound several copies of the Bibles he printed. He must have been trained in Scotland, and if the bindings attributed to him are authentic, he should be credited with extremely careful workmanship and much taste (see Plate 84). In the nineteenth century one of the outstanding binders was John Roulstone, of Boston, whose bindings are signed. I have mentioned Ranger, Ratcliff, and Aitken as binders representative of some of the best work done in the three first centuries of bookbinding in America, but there were scores of other binders working in America at this time. There is an extensive list of early

American binders given by Hannah Dustin French in *Book-binding in America*, pp. 99-116. Much other valuable information may be gleaned from this able and painstaking presentation of the subject of early American hand bookbinding.

Though many gold-overloaded and stereotyped designs were produced on hand-bound books in America during the nineteenth century, as was the case in European countries, occasional examples of this period are found which display restraint and a certain Victorian self-consciousness that is not unpleasing; but the craft of hand binding was less and less able to keep pace with the speed brought about by the industrialization of this country. Competition with the machines, which were capable of producing covers quickly and cheaply for publishers' editions, was too great, and finally the machine "stole the show" from the hand binders. They were no longer supreme, and their craft ceased to be a thriving one.

This condition obtained in America to a greater extent than in any other country, and I think was entirely due to economic causes. Labor was cheaper abroad than in America, and therefore the economic differential between handwork and machine work was most pronounced in this country and made competition sharper here than elsewhere. Furthermore, high tariffs, which were designed to "protect" American industries, were imposed upon materials coming into the United States from abroad and made them just as expensive as those produced here with higher labor costs. This prevented American binders from taking advantage of the cheaper prices paid by European binders for materials. With this double economic handicap, it is not surprising that our hand binders not only were unable to compete with machines, but lost business in competition with foreign hand binders. A large number of American bibliophiles had their books bound in England and France at this time, and our booksellers in great numbers sent their books abroad to be bound, as

they were able to get the work done more cheaply than in the United States, notwithstanding the tariff imposed on imported bindings. These conditions produced a declining craft of hand bookbinding in America at the end of the nineteenth century, when binders in England and France were doing a thriving business, chiefly because they were able to turn out bindings at a price the public could afford to pay. The foreign competition, together with the lack of an apprenticeship system, has militated against the development of hand bookbinding in America, and it is no wonder that superior craftsmen are produced abroad. The few job binders that have been able to survive in this country are doing creditable plain binding, but there is no incentive for them to strive for art in binding, for it is "a losing game" financially and they cannot afford such an adventure.

Nevertheless, the revived interest in handwork that began to be shown toward the end of the nineteenth century extended to all the crafts, both in this country and abroad, and finally pervaded the field of bookbinding. Collectors not only were willing to pay high prices for specimens of rare bindings produced in the past, but sought out contemporary hand binders who were able to take commissions for artistically decorated books, and became their patrons. In 1895 Mr. Robert Hoe, whose extraordinary collection of bindings is well known, together with several Grolier Club members, established a hand bindery in the city of New York, known as the Club Bindery, where imported foreign binders carried on the work. Several large and prosperous bookbinding firms in this country which had previously devoted their efforts to machine binding established departments which were solely devoted to extra binding, and the most talented workmen procurable were employed. Printing firms, such as the Lakeside Press in Chicago and Doubleday, Page & Company of Garden City, organized hand binderies in connection with their establishments and manned them with competent hand binders. The

school for teaching the craft of binding which was instituted and underwritten by the Lakeside Press is evidence of the increasing interest in the United States in furthering the craft of hand bookbinding. The tide was so strong that bookish people at the beginning of the present century became bookbinding conscious, as they had become printing conscious, and hand bookbinding in America was on trial.

As a result of this stimulated interest in binding, a number of would-be bookbinders, mostly women, set sail for Europe to learn the art and craft of binding. Whether this quest by women for training in the craft was inspired by the feminist movement then in progress in this country or whether it was mostly influenced by the fact that women had a lesser economic value than men and could afford to train professionally and practice a poorly paid craft, is a question. In any case, a few of these women worked almost religiously, and after serving a voluntary apprenticeship of several years, returned to America to practice and teach their craft. One of the first American women to study abroad was Miss Evelyn Nordhoff, who worked in England with Mr. Cobden-Sanderson for some time and then returned to New York, where she set up a bindery known as the Evelyn Nordhoff Bindery. Among the women pioneers of the craft in this country is Miss Marguerite Duprez Lahey, whose work is of high standard. She is thoroughly trained, and has made frequent pilgrimages to Paris since her first apprenticeship there, seeking to perfect her technique. For many years she has worked only for The Pierpont Morgan Library. In America at the present time there are other hand binders, both men and women, deserving of mention, but I shall not attempt to present a list of them, for the total number is comparatively large, and it would be difficult to single out a few for special mention without overlooking others.

If hand bookbinding is to develop in America as it has de-

veloped in European countries, first of all, provision must be made for making it possible to get a well-founded training in both the art and the technique of the craft. In European countries standards are set in hand bookbinding, craft schools are inaugurated, and apprenticeship systems are in force which offer opportunities for thorough training in the craft of binding, while in America these organized opportunities are lacking.

In this country, where formerly a system of apprenticeship was abused and hardships were inflicted on apprentices by their masters (as they were also in Europe), instead of stopping these abuses and regulating the system, we, in my opinion, very unwisely abolished it. As a result, we have had to recruit our most expert hand binders from the ranks of foreign workmen. Had we established good technical schools, manned by practical and well-qualified teachers, and had we coincidentally put the whole system of bookbinding apprenticeship on a sound basis, with proper regulation and prescribed standards, we would have been creating our own able bookbinders instead of importing them from abroad.

The course of training for bookbinders in Europe embraces not only the technical and mechanical processes of the craft, but includes sound instruction, by noted masters of art, in the rudiments of drawing and design. This is why the foreign binders are equipped to become creative designers if they possess the talent of originality. If opportunities were offered in America to gain a thorough basic training in the technique of the craft of binding, and if a fundamental, practical knowledge of drawing and design were insisted upon as a part of a hand bookbinder's training, there is no doubt in my mind that we should be producing master binders and really creative work in bookbinding design. The necessity of thorough training applies to every craft, and a well-organized and properly regulated apprenticeship system with standards of proficiency must be adopted in this country,

not only in bookbinding but in many other crafts, if a high standard of workmanship is to be attained.

It is much easier to abolish an apprenticeship system that has been abused than to regulate and enforce that system; but I believe that when we in America learn to substitute the difficult practice of regulating an apprenticeship system for the expedient of summary abolishment of it in our crafts, we shall improve standards of workmanship, and at the same time achieve a greater degree of justice in our social order.

I stated that hand bookbinding was "on trial" in the United States at the beginning of this century, and I think it is still on trial, for the challenge of bookbinders in Europe is at the present time strong.

CHAPTER VII

MISCELLANEA

*Format, Signatures, Decoration of Book-edges, Shrines, Satchels,
Book Covers, and Girdle Books, Forgeries, Some Materials
and their Manufacture, Deterioration of Bindings,
and the Care of Books*

FORMAT

THE early codex is generally referred to as a square quarto book, but as a matter of fact it is made up in folio format. Though most bibliophiles are conversant with the "make-up" of a book, some confusion seems to exist concerning the use of the term "format." However, the etymology of the word, as stated in Littré's dictionary of the French language, points to the conclusion that the term comes to us through the French word *formé*, from the Latin participle *formatus*, meaning "formed."

The word is, at the present time, indiscriminately used by the "trade" with comprehensive significance to describe the size and the entire general make-up of a book, whereas by the bibliographer it is used in a restrictive sense to refer only to the way in which a book has been printed or written on the sheets used for the text and to the consequent folding of those sheets which compose the sections, or gatherings, of the book. To the bibliographer, nothing with reference to size is comprehended in the word "format." A book made up in octavo format may be the same size as one in folio format, depending upon the size of the sheet used for the text.

A folio format, in bibliographical parlance, is made up of sheets folded only once, forming two leaves and four pages. In a quarto format the sheet is folded twice, making double the number of leaves and pages. By folding the sheet a third time one has eight leaves or sixteen pages making an octavo format, which

has been the usual format since about 1700. By additional foldings the 12mo, or duodecimo, format, the 16mo format, and the 32mo formats are arrived at.

The number of leaves to a section does not always identify the format of a book, however, as each sheet does not always constitute a section. For example, folios are usually composed of two or more folded sheets, and the bibliographer looks to the grain of the paper and to other characteristics of a book in determining the format. For more detailed information on the subject, the reader is advised to consult one of the many books on bibliography.

This connotation of the bibliographer is technically precise, and should be adhered to when referring to books printed or written in the early period when the term meant really nothing but the manner in which the sheet was folded.

In the early days of printing the term carried a fairly definite significance with reference to size, because the hand made paper then used varied much less in size than paper used at a later period, and for this reason the term suggested very definitely the shape and size of the book. A folio was then a large oblong book from twelve to sixteen inches in height. A quarto was a square book measuring from nine to twelve inches, and an octavo, a small oblong book about seven to nine inches in height. It was some time after the invention of printing, however, before formats of books became standardized.

The loose use of the term "format" by our publishers seems a bit extravagant to the bibliographer, but it is helpful in visualizing the size and shape of books, and if applied only to books published after the beginning of the nineteenth century, when machine-made paper in larger sizes came into use, it should cause no confusion. In my opinion there is considerable justification for this popular use of "format," for, after all, "formed" seems to permit a broader use of the word than that of merely "folded." In

the final analysis, usage can change the meaning of words, and in this instance I think the bibliographer should not quarrel with the publisher's and the layman's wide meaning of the word, so long as its technical meaning is not lost sight of.

SIGNATURES

The letters or numerals printed or written on the first page of a sheet, which when folded forms a section of a book, are called signatures. The book sections, or gatherings, were marked in this manner in order that their sequence might be easily identified. William Blades has written a monograph on signatures which is illuminating to anyone seeking further information on the subject. In it he sums up the matter interestingly: "The chief use of signatures was and is for the binder. Binding is certainly as old as books. Signatures are certainly as old as binders. It is conceivable that the early monastic scribe, who made his own parchment, concocted his own writing-ink, copied leisurely, with his own hand, the Bible or Psalter, and, lastly bound them *propria manu*, might complete his work without wanting any signatures to help him; or, at any rate, might be satisfied with placing a catchword at the end of each section as a guide to their sequence. But the manufacture of books passed from the monk's scriptorium into the hands of trade guilds, and the increased demand for books caused a great sub-division of labour; and when, instead of one, a manuscript would pass through a dozen workmen's hands before completion; then signatures became a necessity, as much for the scribe as for the binder, as necessary for the collation of the early MS as for the steam-printed novel of to-day."⁹³

Signatures were purposely placed by scribes on the outer edges of manuscripts at the foot of the page so that they would be cut off during the process of binding. This was also the practice in early printed books, and it accounts for the fact that often no sig-

natures are found on them or, when found, are sometimes partially cut off.

The form and system of signatures varies with different scribes and printers, but usually either a capital letter followed by a numeral or one followed by a small letter was put on the first leaf of a gathering. The same capital letter was followed by another numeral or a small letter on the second leaf, and so on: viz. A or A₁, A₂, or A_i, A_{ij}, etc. Neither the letters *i* and *j* nor *u* and *v* were differentiated in early times, and the letter *w* was never used in signatures. This same system continues to be used in printing books at the present time with slight variations, though the signatures are now placed close up to the last line of type.

DECORATION OF BOOK-EDGES

The storing of books in mediæval times flat on shelves, one upon another, with their edges exposed undoubtedly gave rise to the adorning of book-edges, and in the sixteenth century much attention was given to decorating the edges of books by coloring, gilding, gauffering, and painting, though the decoration of book-edges dates to the tenth century.⁹⁴ Titles, legends, floral designs, and devices of various sorts were painted upon book-edges, either purely for their decorative effect or to denote ownership. In Mexico at the beginning of the seventeenth century the edges of books were branded to designate the ownership of a book.

The gilding of edges was practiced soon after gold tooling appeared on book covers, and it was not long thereafter that edges began to be decorated by gauffering. This was done by impressing designs on the edges already gilded, either with a small pointed tool or with binders' tools slightly heated, and these designs were sometimes picked out in color. After the pattern was stamped on the gilded edge, the surface was burnished. The gauffering was done with the book closed and with the edges

tightly compressd. The earliest examples of gauffered edges were produced at Venice and Augsburg.

The German binders were fond of painting their edges, and they used figure subjects from about the middle of the sixteenth century. They excelled in the use of color on their gauffered edges, though the effect was less delicate than florid.

A variety of pleasing effects was obtained in edge decoration by using gold of different shades and combining these varied tones with silver. The Italians, at an early age, employed pale gold in decorating their edges, and by means of its use produced a very dainty effect. The Venetians in particular, as early as the first part of the sixteenth century, gauffered their edges, using a rope pattern similar to that produced on the covers of their books.

The French binders throughout the sixteenth century gilded their edges and gauffered them in elaborate patterns, which they outlined with pointed tools. These designs were usually of a floral or arabesque nature. They also stamped designs on gilded edges of books and then scraped the pattern out, leaving it in white. This gauffering of edges was at its height of perfection in the sixteenth century (see Plate 85).

Le Gascon is said to be the first binder to introduce marbling on edges under gilt. The marbling was done by placing the book-edges on a marbled pattern, which was prepared in a vat. Colors were floated onto a layer of size in the vat, and the patterns were made by stirring and arranging the colors with combs or with other implements. The book-edges were then lightly rested on the marbled pattern, which was transferred to them in its variegated design. When dry, the edges were gilded over the marbling. The gold on edges treated in this manner has a deep luster, but when the book is opened, the gilding is not visible, and the edges appear merely to be marbled. This is caused by the fact that the colors in the marbling run very slightly into the paper, so that they show when the leaves are not compressed, whereas the

gold leaf rests solidly upon the surface of the edge and is not visible from a side view when the book is opened.

It was the "Mearne binder" who introduced an entirely new manner of decorating the fore-edges of books by putting a "hidden painting" on them. This was effected by "fanning out" the edges, painting on them a design, a coat of arms, or a portrait when they were in this position, and then gilding over the painting. As a result of this procedure the edges appear merely gilt when the book is closed, as is the case with the Le Gascon edges that were gilded over a marbled pattern. In order to see the painting, the book must be laid flat with its upper cover opened and on a line with the lower cover. In this position the fore-edge assumes a beveled contour, slanting from the front page to the last page, and thus the painting is exposed to view (see Plate 86). These fore-edge paintings are usually found with the colors still quite strong, doubtless because of their having been protected by a coat of gold leaf.

Later, in the eighteenth century, James Edwards of Halifax, who is noted for his transparent vellum bindings, and John Whitaker, the binder who bound strained calf books in the Etruscan style, revived the art of painting book fore-edges after the Mearne fashion. This use of concealed paintings on the fore-edges of books was practiced by other binders as well. Kalthoeber used the art of gilding over a painted design, though his designs showed under the gold when the book was closed.

The technique used for book-edge paintings is not difficult, though the painting of the designs requires the talent of an artist. The artisan and the artist, though they may be one and the same individual, have distinctly different functions to perform. To produce a painting under gold, the fore-edge of the book is first "cut in boards" with a plough, so that the edge will offer a perfectly smooth surface to work on. The leaves of the book are then "fanned out," and they are held in this position clamped

tightly between wooden boards. The design is painted on the edge with a brush held at right angles to it so that the paint will remain on the surface, and the paint is used not too much thinned in order to prevent the colors from running. When the painting is finished and is thoroughly dry, the clamps are removed, the book is put in a gilding press between gilding boards, and after burnishing the painted edge, it is gilded like any ordinary book-edge, though the press must be screwed up as tightly as possible to prevent the glaire, or size, from penetrating the painting.

This elaborate decoration on book-edges is appealing to many, though it often appears like "gilding the lily." It seems to me most appropriate on embroidered books but very often out of place on leather-covered bindings (see Plates 87, 88).

The branding of book-edges in Mexico, which began in the seventeenth century, was first done by monks in charge of convent libraries in order to mark their property as a precaution against theft. Brands of red-hot iron or bronze were used for this purpose in a manner similar to that used for branding cattle. Usually this branding was done only on the edges at the head of the book, though sometimes it is found on fore-edges of books, and occasionally on both head and tail. Unfortunately, the process often injured the covers, title pages and flyleaves by burning into them. This owner's mark was very effective as a protection against thievery, for a branded insignia on a book-edge is almost impossible to efface without resorting to trimming deep enough into the edges to cut the marks entirely away⁹⁵ (see Plate 89).

SHRINES, SATCHELS, BOOK COVERS, AND GIRDLE BOOKS

SHRINES. It was an early custom to make covers for bound books, and in many instances these covers were more elaborately decorated than the bindings themselves. Books, as well as ecclesi-

astical sacred vessels and prized personal ornaments, were protected by coverings of various sorts, and in the early days of Christianity shrines were made as repositories for sacred books, as they were for other sacred objects.

The boxes, or *book shrines*, made in Ireland for holding their simply bound leather manuscripts are called *cumdachs*. They were overlaid with precious metals inset with jewels, but there are few specimens extant (see Plate 90). One of the finest examples of the Irish *cumdachs* still in existence is that of the Stowe Missal (eleventh century), which is now in the Museum of the Royal Irish Academy. The lid of this book is ornamented with a metal cross, at the ends of which large jewels are set. The silver-gilt background of the cross is decorated with engraved figures of saints, and around the edge of the cover are Irish inscriptions. On the base of the box the jewels and enamels have been destroyed, but the ornamentation of silver openwork design over gilt still remains. This openwork ornamentation is characteristic of other Irish *cumdachs* extant.⁹⁶ The earliest *cumdach* of which there is any record was that for the Book of Durrow (*ca.* 877). This, however, has been lost, but there are several later *cumdachs* to be found in the Museum of the Royal Irish Academy. The *cumdachs* are usually quite small, ranging from 5½ to 9½ inches in length, and they are made of wood, gold, silver, or bronze and almost always have a large cross in the center, with the background filled with various decorative forms. It was the custom in Ireland to put their sacred books placed in shrines under the care of certain families, and their guardianship was inherited by successive generations. The original use of these shrines was in later days perverted, and they were sometimes appropriated as talismans for warriors. A large *cumdach* is said to have been used as a breastplate by a warrior, who carried it into battle, possibly for his protection.

Book shrines were not only of Irish usage, though they seem to

have been peculiarly endowed with veneration by this Celtic race. Byzantine book shrines are still extant and are preserved in some of the Continental ancient churches. Mention of a book shrine under the name of *capsa* is to be found in very early records on the Continent. The celebrated gold *capsa* of Monza in Italy is decorated in a style very like that found on the Irish *cumdachs*. A few examples of Irish shrines may be seen in the royal library of Munich. I have already called attention to the emigration of Irish and English monks to the Continent and have noted their influence on the production of books. It should likewise be remembered that missionaries came from the Continent to the British Isles. While the Celtic influence of Irish art affected art on the Continent, and while the English scribes infused into Continental book art a perfection of performance and a delicacy of feeling, especially under the influence of Alquin of York, the Continent in turn put its stamp upon the art of England and Ireland. It impressed on the art of the British Isles both its forms borrowed from the East and its own peculiarly created or adapted forms. St. Patrick, when he came from the Continent to Ireland (*ca.* 1440), is said to have been followed not only by evangelists, but also by religious associates who were skillful art and craft workers. Through these and other foreign emigrants, Continental influence may be noted on extant book coverings of Irish origin.

BOOK SATCHELS. The very early books were of a religious nature, and all over the Christian world they were treasured and kept carefully protected by coverings such as *book satchels*. The Irish ecclesiastics usually kept their books in satchels, called *polaires*. These cases were made of leather, with straps on them for the purpose of hanging them over the shoulder when traveling or of hanging them up on pegs when they were not in use.⁹⁷ Book satchels were a necessity to the bishop who had to go on

foot to visit the various distant parishes under his jurisdiction, and the priests likewise had to make use of book satchels when they toured their parishes on their various missions. This custom of using book satchels is said to have been brought from Gaul to Ireland, and it probably came to Gaul from the East. Even in modern times, books were carried in satchels by the monks from the monasteries of Egypt and the Levant,⁹⁸ but they were not elsewhere in general use after the eleventh century.

The Irish leather satchels were probably decorated by means of using a blunt point to trace the design, and a flattened hard surface to outline it. Mr. Alfred de Burgh, one of the librarians of Trinity College, Dublin, and an authority on Irish book satchels, came to the conclusion that the cowhide leather used for the Irish polaires was first soaked, after the pattern had been traced on it with a pointed or flat bone instrument, and that the background was then pressed down by wooden or bone implements so that the design was left in relief. He suggests that pressure was also probably applied from the underside of the leather.⁹⁹ Aside from this manner of decorating Irish book satchels, the technique of *cuirbouilli* is said to have been used by Italian workmen in the fifteenth and sixteenth centuries for decorating leather book coverings.

BOOK COVERS AND GIRDLE BOOKS. Several types of leather book covers have been in use since the first flat book began to be bound in leather. The usual leather binding, which is pasted over the sides and back of a book and is then turned over the edges of the boards and pasted down on the inside of the covers, is the well-known type that continues to be made today.

During the Middle Ages and early Renaissance a protective cover of soft leather, like doeskin, was often sewed fast to a leather-covered book. It entirely covered the sides and back of the book and usually extended several inches over all the book-

edges at head, tail, and fore-edge. When the book was not in use the projecting edges of leather were folded over the edges of the book, and thus the covering not only protected the leather binding on the sides and back, but the edges of the book leaves as well. Some sort of covering was necessary for keeping book covers from being badly worn and unstained by inclement weather when books were carried about in the Middle Ages as they were so frequently by scholars and clerics.

It is possible that this manner of covering bound books suggested a second type of extra-covered book — the girdle book (see Plate 91) — which was peculiarly adapted for the use of the monks and clergy who needed not only to carry books from one place to another, but to have them conveniently near for the purpose of reciting their offices. Magistrates have been pictured carrying girdle books, but scholars who have made a study of the history of these books have come to the conclusion that they were probably used only by the clergy or by someone connected with the Church.¹⁰⁰

The uniquely fashioned extra cover of the girdle book folded over at head and tail of the binding, served not only for the convenience of the cleric, but as a very excellent protection from soil and wear when carrying the book about. The leather folded over at the head of the book is left about two inches long; that at the tail extends for nearly a foot beyond the book, and is gathered together at the end into a braided buttonlike knob, effecting a sort of hooded gossamer bag convenient both for carrying the book by hand or fastening it to a girdle. Hence the name "girdle book." Monks walking about on their various missions, in the holy processions when they were wont to read from their books of prayer and suggested meditations, or in the monastery gardens between the offices of Lauds and Vespers, must have been consoled by the ever-presence of their breviaries, made possible by the girdle book.

The use of girdle books, beginning in the second half of the fourteenth century, appears to have been confined to a period of not more than 150 years, and to the limited region which extends from the Netherlands to the valley of the Upper Rhine. Though these books were evidently not uncommon during that time, since they were frequently depicted in prints, paintings, and sculpture, there are few examples of them extant. Most of the few remaining girdle books now known to be in existence are in European libraries and institutions. The example illustrated in Plate 91 is available for inspection in the Spencer Collection at The New York Public Library.

Mr. Kup, in his brochure *A Fifteenth-Century Girdle Book*, suggests that the mysterious disappearance of girdle books may be due not only to "wear, negligence, fire or warfare," but to the fact that possibly the long ends of girdle books were cut off, after they ceased to be popularly used, in order that they might be more conveniently placed on library shelves.¹⁰¹

FORGERIES

Forgeries in bindings have been quite common in the past. When the price of an article reaches fabulous heights, there are always crafty and talented workmen who spend their expert workmanship imitating the objects of art in demand and offer them for sale as originals.

I have already referred to the imitation of early enamel bindings, which only the well-versed specialists are able to tell from veritable old bindings. As articles become scarce, they are more ardently sought after by the collector, and then the imitator sets out to take advantage of the market.

Mr. G. D. Hobson, in his book *Thirty Bindings*, referring to the London exhibition held at the Burlington Fine Arts Club in 1891, writes of "the increasing struggle between the wiliness of forgers and the wariness of collectors," and he mentions several

books in that exhibition that were found to be forgeries. Among them was a Grolier binding in Lord Amherst's library which was discovered by Mr. Seymour de Rici to be an imitation. In this same exhibition there were several elaborate bindings belonging to the Huth library that were found to be forgeries.

Many early Italian cameo bindings which bore impressions taken from antique originals have been imitated and passed off as originals. This type of forgery was practiced to a great extent in producing imitations of Italian bindings with figures painted on their wooden covers.

Super-ex libris bindings, like the association bindings containing the coats of arms of Madame Pompadour or some other book collector, have been often imitated, and modern dies have been cut with surprising faithfulness to the originals for impressing upon the sides of books purporting to have original bindings. The fake bindings can only be told by a study of the cutting of the dies, the color and quality of the gold used in tooling, or by some other technical characteristics. As a matter of fact, the list of discovered forgeries in bindings is a long one.

There have been quite a number of Grolier, Roger Payne, and other bindings cherished by collectors "floating about," as it were, and I have introduced this topic merely to cite the frequency of forgeries in bookbindings. Since it requires the knowledge of an astute binding specialist to discover an imitation of a master binder's work, the average collector should expect to be doomed to possible disappointment if he purchases bindings without first submitting them to the inspection of some authority specializing in the history of bookbinding styles and workmanship.

SOME MATERIALS AND THEIR MANUFACTURE

LEATHER. Much experimenting has been done, since the beginning of the nineteenth century, to perfect methods of prepar-

ing leather suitable for use in covering books. This material has undergone changes in manufacture since it was first used as a protective covering for books, when it was tanned and dyed by binders for their own use, instead of being manufactured as a commercial product.

There has been a practice among some manufacturers of impressing on sheepskin an artificial grain like that of morocco or levant. Other cheap skins are marketed which have imprinted on their surface the grain of some skin that is foreign to them. They are thus made to resemble skins which are commercially considerably more valuable than these inferior skins would be if finished without the disguise of having a spurious grain put upon them. The grains which are achieved by artificial methods are often so skillfully put upon the surface of leathers that it is difficult to identify the true nature of the skin. Leathers can be identified only by studying the disposition of the pores of the skin under a high-powered magnifying glass, for every animal has a skin with pores of such a character and particular distribution that they form a pattern peculiar to each different breed. An artificial grain cannot conceal this pattern and the character of the pores if the skin is examined under a powerful lens, though it requires an expert in this field to read the pattern and identify the kind of skin on which the grain has been impressed.

In 1900, by special request of the Library Association of London, the Society of Arts began a scientific investigation into the cause of the deterioration of leather, and a committee was appointed to inquire into leather manufacturing methods. This committee was composed of representative librarians, bookbinders, leather manufacturers, and scientists of England, who after intensive investigation and study of the deleterious effects upon leather, formulated a report which was published by the Society.¹⁰² The conclusion was reached by this committee that old bindings of the fifteenth and sixteenth centuries were generally

in a better state of preservation than books bound during and after about the middle of the nineteenth century. They found that morocco bindings earlier than 1869 were in a fair state of preservation, while morocco bindings after that date showed much deterioration, and in many cases the leather on them was almost entirely rotted away. It was also reported that hardly any sound calfskin appeared to have been used on books since about 1830. And russia leather, which is of the nature of ordinary calf, was found to have been especially vulnerable to deteriorating influences. This leather, so favored by Roger Payne, was first produced in Russia and later imitated in other countries. Its process of manufacture differs from that of other leathers, in that it is tanned with willow bark, dyed with sandalwood, and is soaked in birch oil, which accounts for its pleasing odor. Possibly this special treatment is responsible for its susceptibility to rotting.

The committee expressed the opinion that the premature decay of leather is due chiefly to improper tanning and dyeing materials and methods. It was pointed out that before 1860, leathers were generally tanned with oak bark or sumac and were dyed without the aid of acids, whereas leather manufactured since that date has been tanned with inferior tanning agents and is usually cleared of grease by the use of sulphuric acid. The work of clearing skins with acids is a quick process, requiring far less time than when skins are cleared in vats with water revolving over them for six weeks or more. Thus methods in tanning and dyeing and the use of inferior tanning and dying materials appear to have been the chief factors responsible for the inferiority of leather recently manufactured. However, the committee came to the conclusion that the deterioration of calf on bindings produced in the latter part of the nineteenth century was probably due as much to the fact that the leather had been unduly thinned by the binder as to the poor quality of the leather itself.

Since the publication of this report some manufacturers have

been preparing leather in accordance with the recommendations of the committee, and as a result we are now able to procure leathers guaranteed "acid free," but these leathers have not been found altogether satisfactory. They, too, appear to be subject to decay, though not as quickly as leathers prepared with acid. More light on the subject must be sought, and experimentation directed toward producing sounder leathers is continually going on here by the United States Department of Agriculture and by large libraries, as well as in Europe. The bookbinder is eagerly awaiting the time when these investigations and experiments will result in producing leathers as durable as those made in the Middle Ages, but I have a suspicion that if books bound in mediæval times had been subjected from the first to the fumes of gas, the intensity of heat in houses, and other deteriorating conditions which prevail in modern times, they would not be found to be so well preserved as they have been.

PAPER. The history of paper manufacture has been covered by various authorities and, without going into great detail, I propose to give a brief sketch of how a sheet of paper is usually made, both by hand and by machine, in order to bring out the main differences in the manner of fabricating these two types of paper.

To make paper by hand, the rags are put into a vat in which there are revolving knives. A large metal block is next to the shaft on which the knives are fixed, and the rags are shredded by being caught between this block and the revolving knives. In order to retain a long fiber, it is necessary to have the knives quite dull and to do the cutting slowly. It requires about a week to grind up the rags for the best paper, if done in this way.

Having been cut up, the rags are washed and are colored, if colored paper is to be made. If colored stock has been used for making white paper, the rags are bleached with a bleaching chemical, though this process is obviously not desirable. Water is

added to the rags, and they are then put in a vat and are mixed to a pulp. When "digested" and ready to be used, the pulp is taken from the vat on a *form*, or *mould*. A mould is a sort of frame with a fine screen bottom and with four raised edges to hold in the pulp as it is being moulded into a sheet of paper. A flat frame, or cover, is placed on top of the mould and the covered mould is shaken until the material in it is level. The pulp is then turned out, or *couched*, on a felt pad which absorbs the water and imparts to the sheet of paper its surface. The felt pads used are rough or smooth according to the finish desired on the paper, and the sheets of paper are piled between them one over another.

The process of dipping the mould into the vat to take up just the amount of pulp needed and that of shaking the mould require much experience before a workman is able to produce sheets of paper uniform in thickness.

After being couched and let to dry somewhat, the paper is dipped by hand into a gelatin size. It is dipped several times if a hard finish is desired. Papers may also be "vat sized," in which case the size is put in the vat of pulp before the pulp is used to form a sheet. After being dipped in size, the sheet is hung up to dry on wires that have little pins, similar to pinching clothes pins. The sheets of paper are left about a week and are then put in a press, sometimes between metal plates if a "plate finish" is called for. All four sides of the sheets have a *deckle*, or an irregular edge, made when the pulp touches the sides of the mould as it is being shaken. On the screen is a raised design of some sort serving as a mark to denote the papermaker. The mark made on the paper by this design is known as a *watermark*. The paper is made thinner where the pulp touches this raised design, and when the paper is dry, the design becomes distinguishable when being held up to the light. The lines of the heavy wires running from side to side of the mould are also impressed on the paper

and are known as *chain lines*, or *wire marks*. These wire marks indicate the "grain" of the paper.

Machine-made paper is made in one long continuous piece on a mould that is kept in motion from end to end. These paper-making machines are enormously long. The pulp is fed to the bed of the mould from one end of the machine, and it comes out as paper at the other end, where it is rolled up into large rolls. Machine-made paper can have only two deckles, which are produced during the process of manufacture by playing a stream of water on the edges of the pulp.

When a new sheet of paper has only two deckles it is certain to be machine made. This is one of the ways of distinguishing it from handmade paper. The deckles on machine-made paper differ from those on a handmade sheet and can be easily recognized, as the surface of the edges is more regular and is somewhat flattened on one side.

Instead of using gelatin for a size, the cheaper machine-made paper is sized with resin, which has to be mixed with sulphur or sulphuric acid. On this account the paper is likely to turn yellow rather quickly.

According to paper experts, a machine-made paper should have as lasting qualities as a handmade paper if the same stock is used in both instances, except for the fact that the fibers in the stock of a machine-made paper tend to run in one direction, since they are shaken only crosswise. In the case of a handmade paper, the fibers are shaken four ways and thus the sheet is made equally resistant to being torn crosswise or lengthwise. This is not true of the machine-made paper.¹⁰³ The great variety in the methods and designs used in making decorated papers represents both the inventiveness and the taste of their makers. The earliest decorated papers used in Western Europe for the end papers of books were marbled.¹⁰⁴

When and where the first marbled papers were made is veiled

in considerable obscurity. Lord Bacon, who in his *Sylva Sylvarum* called the process "chamoletting," believed this invention to be a Turkish one;¹⁰⁵ a theory which E. P. Horne apparently shared. J. de la Caille attributed it to the French binder Macé Ruelle,¹⁰⁶ whereas C. W. Woolnough was persuaded that the art probably had its origin in Holland or in that vicinity.¹⁰⁷ In his book *The Whole Art of Marbling* he appears to base his opinion on the fact that at the beginning of the seventeenth century small packages of Dutch toys sent into England were wrapped with marbled papers, for the obvious purpose of avoiding the English duty, and that these papers were smoothed out and sold to bookbinders for use as end papers. Although the Dutch are credited with having been the first to marble book-edges, this evidence presented by Woolnough seems rather flimsy proof that they were the first to marble papers. It is well known that Holland at that time was a thriving center for the importation and exportation of manufactured articles. It is furthermore known that bookbinding papers were imported from Germany and Italy and were exported to England and even back to the countries of their origin, via Holland. The so-called "Dutch" toys were not even always of Dutch manufacture, but were likely to have been made in Nuremberg.

Mr. W.H. James Weale, in reviewing the various theories about the origin of marbled papers, ascribed the invention to the Germans, though in a later note he mentions having found marbled papers of Turkish origin in an album dated 1616, and he refers to still another Oriental binding of the end of the sixteenth century containing marbled end papers. He does not state categorically that his later discoveries changed his opinion about the origin of marbled paper, though this might be inferred.¹⁰⁸

It is quite possible that the Turks, Germans, and Dutch discovered this method of decorating papers independently of each other, and that Macé Ruelle may have worked out the process

through his own initiative, irrespective of whether or not it had been discovered previously.

The exporting and importing of papers has caused much confusion and difficulty in the matter of identifying the origin of bindings. Papers made on the Continent are found in English bindings, and papers made in a certain Continental country are found in bindings the origin of which are unmistakably that of a different country. Foreign papers were imported into America as early as 1679 and were used by American binders before and after paper began to be made in this country.

The French are credited with having made "drawn" patterned and fine "comb" patterned marbled paper probably along the end of the sixteenth or the beginning of the seventeenth century.¹⁰⁹ These papers were certainly used in France in the early part of the seventeenth century for various purposes. Marbled papers began to be made in Spain, as well as in Holland, and in almost all other Continental countries during the seventeenth century. Though some of the patterns, such as the "French shell," were not made until late in the eighteenth century. The French patterns most used at first were the "drawn" and "comb" patterns, each of these patterns having been formed by means of drawing them or combing them on a sized and colored surface which was floated on water in a marbling tub, and afterwards transferred to sheets of paper by laying them over this surface. The process of marbling paper is described in books recommended in Selected List of Books at the end of this volume. Rosamond B. Loring in her book *Decorated Book Papers*, describes not only various processes of making decorated papers, but reviews their history.

Some of the early wood and metal block papers were printed in small repeat patterns. The eighteenth century French ones are not so decorative as the scenic patterns made in France in the early seventeenth century, the designs of which were too large to

use for end papers. The large-patterned printed papers were used on walls to cheer up particular spaces cut up around cupboards and fireplaces by the French people who could not afford the expensive hangings that adorned the walls of the wealthy people of that country. Many types of so-called "block papers" were made in most of the Western European countries in the seventeenth and eighteenth centuries, and they were used for many purposes besides end papers, for books, such as that of covering small objects of many kinds. Papers were also printed by the lithographic process.

The early block papers of Italian origin are less stereotyped in pattern than those made in the countries farther north, and they display a merging of colors which tends to make one less conscious of the repeated forms. Probably somewhat earlier than the eighteenth century gold was introduced into wood- and metal-block papers in the south of Germany and in Italy. Many papers of this type are signed by papermakers of Augsburg and Nuremberg. They have bright colored backgrounds, and the stamping in gold leaf over color imparts to them a rich effect. In some of these papers the pattern is printed solidly in gold and is slightly raised.

Frequently gold-printed papers had freely drawn arabesque designs into which figures of birds, beasts, and other subjects were introduced in a fanciful manner. Others, such as those depicting religious subjects or the various trades, display an equal amount of imagination, though they are printed in rigid panel forms. In each panel appears a figure of a saint holding some emblem, and often identified by name at the bottom of the panel, or a figurative conception of some craft or trade will form the motif of the panel. Panel papers were rarely used for end papers or on book covers, as they do not lend themselves to such use. When they have been found in books, the designs are mutilated by being interrupted or cut into.

Block papers of alphabets were also printed in gold over colored backgrounds in panel form. The alphabets were arranged like those found on hornbooks, with a row of digits at the bottom, and they were probably used for hornbooks. Many of the "gilt" papers were made during the eighteenth century in England as well as in Germany and Italy.

There is a type of decorated papers called "paste papers," which have been used extensively for both end papers and for covering the sides of books and portfolios. The art of making paste papers is not an intricate one, and it is taught to children in many of our progressive schools. In Europe the processes of making all types of decorated papers are taught in most of the trade schools, along with the designing and making of wood and linoleum blocks.

Paste papers were used for end papers as early as the late sixteenth century,¹¹⁰ and continue to be used both for end papers and for book covers. They are made in a number of different ways. The simplest technique used is that of covering the surface of a sheet of paper with colored paste and drawing a design on it through the paste with a blunt tool, with a comb or some other object, or even simply with the finger or thumb. In this way striped patterns may be made, or plaids, diamonds and various forms may be impressed through the colored paste, which show a paler tone than that of the surface color. Engraved rolls, like binders' fillets, when run over the colored paste will leave their definite patterns. A simple paste paper can be made by merely applying a sponge with a patting motion over the pasted surface and leaving a mottled effect in two or more tones.

Another simple way of making paste papers consists in applying colored paste to two sheets of paper, pressing the two papers together and then pulling them apart. This leaves a not unattractive irregular effect of color on the papers, and if some objects like pieces of string, coins, or flat articles of any sort are laid down in a

pattern on one pasted paper before the other one is put down over it and pulled away, a considerable amount of variety may be attained by this simple process. This type of paper is called a "pulled" paste paper. The paste is colored for all these papers with "show card colors," inks or any sort of dissolved pigment.

"Sprinkled" end papers have been made by binders both with and without paste for a long time, by using the same technique that they use on the edges of books. A color, in liquid form, is brushed through a fine sieve onto the paper with a stiff brush, resulting in a stippled effect. Frequently more than one color is applied, one after the other.

End papers were used by nineteenth century publishers by way of advertisement which were printed with designs intermingled with lists of books for sale, and frequently with insignia or a monogram of the publishing house. Our present-day publishers often employ celebrated artists for designing end papers that are descriptive of the subject matter in the text. Jessie Willcox Smith, Maxfield Parish, Arthur Rackham, Boutet de Monvel and others have designed end papers especially for children's books. Walter Crane and Aubrey Beardsley in England, and Joseph Pennell and Howard Pyle in America, besides numerous other artists both here and abroad, have produced designs for printed end papers that have lent much interest to publishers' editions. Contemporary artists, such as Rockwell Kent, W. A. Dwiggins and Boris Artzybasheff have been using their talent in making designs for the printed end papers used by publishers.

In the nineteenth century, William Morris gave attention to making patterns for end papers which were printed from wood and zinc blocks. Principally in Germany, France, and Italy old block-paper designs have been revived and new ones designed for the making of end papers. Old marbled patterns have also been reproduced in European countries and new ones invented. Those made by Douglas Cockerell and Son are among the most

original in design and pleasing in color. In the United States there are many makers of attractive marbled and paste papers of original design. While a number of American binders make end papers for their own use, there is a long list of makers of decorated end papers who sell their papers; among whom are Mrs. Henry F. James, a pioneer in the field, Rosamond B. Loring (Mrs. Augustus B., Jr.), Peter Frank, Oscar H. de Boyedon, Dorothy B. Moulton, Janet E. Bullock (Mrs. George), Jane E. Cox (Mrs. Irving), Mrs. Thomas H. Shipman and Veronica Ruzicka. This list does not pretend to be complete.

GOLD LEAF. The process of beating solid, thick pieces of gold into thin sheets, called gold leaf, is a very specialized one, and there are few workmen who understand the art of gold beating.

A standard size of gold leaf was formerly three and one-half inches square, and in order to make the finest sheets of gold this size 22-carat gold is cast into a bar measuring approximately eight inches long, one inch wide, and one-half inch thick, and weighing about thirty-five ounces. The bar is then rolled out into a sheet of about the thickness of a visiting card, and the sheet is cut into pieces called "ribbons," which are made up into packages, or "beatings," weighing about two and one-half ounces each. These go to the goldbeaters' bench, and the beater first cuts one of the "beatings" into 181 inch-square pieces and places them into a *kutch* two and one-half inches square, which is made of specially prepared so-called "paper." As he lays these pieces of gold into the *kutch* the workman interleaves them with "paper," and then he proceeds to beat on the *kutch* with an iron hammer weighing about eighteen pounds until the gold squares are thinned out to the size of the *kutch*, or to two and one-half square inches. Next these squares are cut in quarters and are placed into a four-inch-square goldbeater's skin called a *shoder*, and they are beaten out with a hammer until they are the size of the *shoder*. This *shoder* is made from the intestines of an ox, and the

prepared "paper" is made from calfskin and is really a sort of parchment.

The "shoder leaves" are then cut into quarters, making them two inches square, and they are fitted into moulds which are made of the same material as the shoder. Next the gold is beaten out in the moulds with a lighter hammer until it is about the size of the mould, and the gold beating is completed. The moulds are passed on to girls who take out one leaf of gold at a time, trim it, and then "book" it, or place the leaves between papers into a book which holds twenty-five sheets. These "books of gold" are then ready for sale to the binder.

Thus an eight-inch bar of gold one-half inch thick and one inch wide, after being rolled, cut into thin sheets, and cut into one-inch-square pieces, is transformed into 2,080 sheets of gold of almost transparent thinness by successively confining its pieces into increasingly larger "beaters' skins" and beating them until they reach the thinness and size desired.

This process of gold beating was described to me in detail and demonstrated by an aged English goldbeater, who had plied his craft for over fifty years and who was considered one of the most expert goldbeaters in England.

DETERIORATION OF BINDINGS AND THE CARE OF BOOKS

The deterioration of bindings is due to a variety of causes, chief among which are poor materials used for binding books, faulty workmanship in their construction, bad conditions in storing bound books, and improper handling of them.

Most extra binders use the best materials procurable, but these are not wholly satisfactory and are subject to impairment of strength even under the most favorable conditions. When these materials are used on a faultily constructed book, there is an unnecessary strain put upon them, and a premature wearing out

takes place. This is also the case when the materials themselves are used in a manner not consistent with strength. The most flagrant example of this is found in bindings the leather covers of which have been unduly pared and thinned in such a manner that the very life of the leather is vitiated. The strength of leather resides for the most part in its fibers, and these cannot be cut into without injury to the material. At the present time we are tending toward such "finish" in hand bookbinding that strength and lasting qualities are being sacrificed. It would be unnecessary to thin a leather too drastically if the size of the skin used for covering were suited to the size of the book to be covered. Small skins of fine grain are quite thin, and these should be chosen for covering small, slender books, for then practically the whole strength of the skin may be left intact. This practice adds to the expense of a binding, for small skins do not cut to advantage economically, but I think most book lovers would be glad to pay for the extra expense involved in order to secure a more lasting binding.

Another practice that shortens the life of a leather-covered book is that of wetting and stretching the leather when covering. When leather is pasted it has a tendency to stretch, and if its natural stretching characteristic is increased by profuse wetting when it is being fashioned to the shape of a book, its fibers are pulled out to unnatural length. As a result, a strain is put upon them, and after the leather has dried, it is far more likely to crack than when put in place without being stretched to its utmost in this manner.

One of the commonest faults of construction is the use of a hollow back (see Vol. II). This type of back is a false back, and therein lies its weakness. The same weakness is inherent in false headbands, which, like hollow backs, are merely pasted or glued on. The only type of headband that will withstand the wear and tear of usage is one sewed through the sections of the book and thus made an integral part of it.

There are numerous minor features of construction in book-binding, too technical to discuss here, which are important to the life of a binding. A collector of bindings would do well to acquaint himself with them and insist upon having them incorporated in his bindings.

The matter of storing books has been the subject of scientific study, and though experts differ about certain conditions most favorable for preserving the life of bindings, they are unanimous in their opinion about the action of some agents that have a deteriorating effect upon bindings. It is agreed that ventilation and freedom from dampness are necessary to prevent premature decay of leather. We know that dampness produces mould, or mildew, and that excessive dryness produces cracking and rotting of leather. The partial answer to this has been air conditioning. Light has been found to be a deteriorating agent; as well as dust, gas fumes, and smoke. Tobacco smoke is extremely deleterious, and gas fumes not only conduce to the deterioration of leather bindings, but have a dulling effect on gold tooling. To exclude the direct rays of light in glassed-in bookcases, colored glass has been found effective. A pale-yellow or yellowish-green tint has been found to be most successful for this purpose.

Books should be placed on shelves sufficiently tight together to keep them from yawning, in order that the boards will not warp. To this end, an inconspicuous metal prop can be used to hold the last book upright when a shelf is not filled. But if books are too tightly packed, no circulation of air can reach their sides, and mildew is liable to be the consequence. If mildew has attacked a binding, it can often be removed by wiping it off with diluted alcohol or vinegar, but its occurrence could be prevented by keeping the books in a dry atmosphere and removing them from the shelves periodically to rub their sides with a dry, soft cloth.

One of the moot points about housing books is the question of glass-covered cases or uncovered shelves. Glass cases certainly

keep out dust and fumes of gas and smoke to a great extent, but if leather bindings are left in closed-in cases in a room not air conditioned and are not handled frequently, they are liable to be attacked by mould. If they are kept on open shelves and not frequently dusted and oiled, they are vulnerable to many deteriorating conditions. So it is that, whether kept behind glass or on open shelves, books should be frequently handled, cleaned, and oiled if the life of their bindings is to be prolonged.

There are numerous formulae for the preservation of leather bindings. Different leathers demand different treatment if maximum preservation is to be attained. For example, leathers with many small pores are best fed and dressed with a more fluid mixture than those with larger pores, or the pores will be clogged. But it requires some expert knowledge to be able to determine just the dressing which would be most efficacious in preserving a leather binding, and a general-use dressing is best employed by one not expert in this field. Such a dressing must be composed of an oil, to serve as a food, and a penetrating fluid. There is a simple formula developed by The New York Public Library which serves this purpose well. It is composed of four parts of lanolin (procured at any pharmacy) to six parts of neat's-foot oil. The lanolin should be warmed slowly until it runs freely, and then the pure, filtered neat's-foot oil mixed thoroughly with it. A book taken from the shelf should be freed from dust by first lightly slapping its covers together and then wiping off the head and sides of the volume with a dry cloth. The dressing mixture, after being cooled, may next be applied with a tampon. To make the tampon, a small amount of absorbent cotton is formed into a fair-sized ball, and around it is wrapped a piece of clean white cotton cloth which is screwed together at the top like a cornucopia. It is then tied at the neck with a piece of string. With this tampon, the dressing is applied to the leather sides and back of the book, and the book is left to stand for a few hours until the oil

in the dressing has been absorbed. When dry, the sides of the book are rubbed with a soft cloth and are finished off with a clean sheep's-wool shoe polisher if a high polish is desired.

When the skin of an animal is parted from its fatty body to be used on a binding, it loses its source of food and the natural animal oils. This loss must be supplied if the skin is to retain its life to any great extent. The feeding of oils from the surface of the skin cannot wholly compensate for the loss the skin has sustained by being cut off from the natural oils of the animal body, but this artificial feeding has been found to be beneficial and even necessary, for prolonging the life of leather that has been stripped from animals for the purpose of covering books. Subject as it is to foreign conditions, unless some artificial means are employed, the skin very soon becomes dried out, and disintegration sets in.

Just a word about bookworms — those pests that defy the wit of man. These so-called worms are not confined to their attack on books, for they infest wood as well. Something can be done about their ravages by putting camphor or alum in bookshelves as a repellent. But glue and paste seem to attract them. A book infested with them if put in a closed box with ether is effective against the live worms, but this treatment will not destroy the eggs, and a book containing them must be treated frequently. Turpentine, camphor, and tobacco infusions seem to help, but only by persistent effort can bookworms be exterminated. Though the live worms can easily be killed with ether, the larvæ must be coped with. A weak solution of formaldehyde can be sprayed on the book with good results, but care must be taken, and no discoloring insecticide should be used on books. Usually it is only old books that are attacked, and these must be isolated.

Many helpful suggestions on the preservation of bindings will be found in the United States Leaflet No. 69, and in *The Care and Repair of Books* by Harry Miller Lydenburg and John Archer, second edition.

In the foregoing remarks I have had especially in mind real bindings, but publishers' casings likewise suffer from being exposed to dampness, excessive heat, and fumes of gas and smoke. Faulty planning and inferior workmanship are contributing factors in shortening the life of a casing as well as a binding, and because of their very temporary character, casings are too often looked upon with indifference, and less care is taken in their handling and housing than they merit.

I feel sure that a large part of the general public would use more care in the handling of books if it were better informed about book structure. The carelessness with which books are pulled off the shelf by tugging at their headcaps, the manner in which they are thrown with open pages face down on the table, thus straining their backs, and the habit of stuffing their pages with extraneous matter inserted for bookmarks, all militate against the life of a casing or binding, however well constructed. Then, too, much harm is done to a new book that is quickly and sometimes roughly opened by an avid reader. A newly cased or bound book should be opened with care, lest its back be broken, for then a binding has been started on its way to an untimely disintegration. To open a newly bound book, it should be laid on a table, and a few leaves at the front and at the back should be pressed open on the book boards. Then several more leaves, at both front and back of the book, should be pressed down gently in the same manner, and this should be continued until the center is reached, using care to take approximately the same number of leaves at the front and back. After this is done, the book will probably have a tendency to yawn, but this can be overcome by putting it under a few heavy volumes and leaving it under pressure for a short time.

Books serve us as silent friends and they should be treated by their owners with consideration.

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19. F. Sarre, *Islamic Bookbindings*, p. 11.
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23. Bernard Quaritch, *Facsimiles of Bookbindings*, p. 17.
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29. *Ibid.*, p. 306.
30. For further information on this subject see:
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31. Konrad Haebler, *The Study of Incunabula*, translated by Lucy Eugenia Osborne, p. 176.
32. See K. Burger, *Buchhändleranzeigen des XV Jahrhunderts*, for a full discussion of the book trade in the fifteenth century.
33. H. P. Horne, *The Binding of Books*, p. 36.
34. W. H. James Weale, *Bookbindings and Rubbings*, p. xv.
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40. W. H. James Weale, *Bookbindings and Rubbings*, p. cxxiv.
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42. *Ibid.* See note Vol. I, p. 53, for interesting date on Ducali bindings.
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44. E. PH. Goldschmidt, *Gothic & Renaissance Bookbindings*, Vol. I, p. 138.
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46. W. H. James Weale, *Bookbindings and Rubbings*, p. lxxvii and p. lxx note.
47. This translation is that of G. D. Hobson in *Maioli, Canevari and Others*, p. 58.
48. Several reproductions will be found in *Maioli, Canevari and Others*, Plates 19-24, and the result of Mr. Hobson's research on these bindings is given in the same volume pp. 18-36.
49. W. H. James Weale, *Bookbindings and Rubbings*, p. lxxviii.
50. Grace Hart Seely, *Diane the Huntress*, The Life and Times of Diane de Poitiers, pp. 211 ff.
51. MM. Marius Michel, *La Reliure Française*, p. 63.
52. G. B. Hobson, *Thirty Bindings*, p. 34.
53. G. B. Hobson, *English Binding Before 1500*, p. 2.
54. *Ibid.* See Plate I.
55. *Ibid.* See Plates 4 and 5.
56. *Ibid.*, p. 17.
57. J. Salt Brassington, *A History of the Art of Bookbinding*, pp. 157-158.
58. W. Y. Fletcher, *English Book Collectors*, Preface p. ix.
59. Cyril Davenport, *Thomas Berthelet*, p. 24.
60. *Ibid.*, p. 64.
61. See *English Book Collectors* by William Younger Fletcher, pp. 43-45, for information about Sir Thomas Wotton.
62. See William Younger Fletcher, *English Bookbindings in the British Museum*, Plate XLVIII, for a very remarkable example of a Little Giddings binding by Mary Collet.
63. See *The Edinburgh Bibliographical Society Transactions*, 1918.
64. G. D. Hobson, *Thirty Bindings*, p. 56.
65. See Cyril Davenport, *Samuel Mearne*, p. 90.
66. Cyril Davenport, *Roger Payne*, pp. 30-31.
67. See Cyril Davenport, *Roger Payne*, for a full page of reproductions of Roger Payne tools, p. 61.
68. *Ibid.* Note many excellent reproductions of Roger Payne bindings.

69. William Younger Fletcher, *English Bookbindings in the British Museum*, Plate XXXII.
70. Charles O'Connor, *Rerum hibernicarum scriptores vesteres* CLXXVII.
71. The date of these two covers has been taken from the files of The Pierpont Morgan Library, and according to Miss Belle da Costa Greene, Director of The Pierpont Morgan Library, has been confirmed by all the leading scholars in this field of art.
72. Cyril Davenport, *The Book*, p. 182.
73. W. H. James Weale, *Bookbindings and Rubbings*, p. liii.
74. *Ibid.*, p. lxiv.
75. See E. PH. Goldschmidt, *Gothic & Renaissance Bookbindings*, Vol. I, Opp. p. 56, for a rubbing of this Gothic panel.
76. *Ibid.*, Vol. I, p. 24.
77. *Ibid.*, Vol. II, Plate I.
78. *Ibid.* Line sketches of all these distinguishable types of stamped bindings will be found in Vol. I, pp. 18-23.
79. Konrad Haebler, *Rollen und Plattenstempel des XVI Jahrhunderts*, Leipzig, 1928, pp. 1, 377.
80. E. PH. Goldschmidt, *Gothic & Renaissance Bookbindings*, Vol. I, p. 133.
81. W. H. James Weale, *Bookbindings and Rubbings*, p. cxvii.
82. See Dr. P. Christel Schmidt, *Jacob Krause*, for information about this binder.
83. W. H. James Weale, *Bookbindings and Rubbings*, p. cxviii.
84. MS. of Herrade quoted by Martin, *Mélanges d'Archéologie*.
85. E. PH. Goldschmidt, *Gothic & Renaissance Bookbindings*, Vol. I, p. 76.
86. *Ibid.*, Vol. I, pp. 78-82.
87. G. D. Hobson, *Thirty Bindings*, Remarks p. 36. Note reproduction of this binding facing p. 36.
88. See A. de Hevesy, *La Bibliothèque du Roi Mathias Corvin*, for further information.
89. For colored reproductions see Th. Gottlieb, *Bucheinbände der K K Hofbibliothek*, and A. de Hevesy, *La Bibliothèque du Roi Mathias Corvin*.
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91. Hannah Dustin French, *Bookbinding in America*, p. 17.

92. *Ibid.*, p. 67.
93. William Blades, *Bibliographical Miscellanies*, No. 1, p. 5.
94. Cyril Davenport, *Samuel Mearne*, p. 16.
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97. J. Salt Brassington, *A History of the Art of Bookbinding*, p. 76.
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99. G. D. Hobson, *English Bindings Before 1500*, p. 27.
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104. Rosamond B. Loring, *Decorated Book Papers*, p. 12.
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106. J. de la Caille, *Histoire de L'Imprimerie et de la Librairie*, p. 213.
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GLOSSARY

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À froid. The French term for blind tooling.

Alae. A term of Arabic derivation meaning wings. Used to describe a motif in book decoration.

à la Cathédrale. A style of book decoration featuring a center design suggestive of a cathedral window.

à la fanfare. See Fanfare.

All-over design. A design planned as a decoration to cover an entire side of a binding, in distinction to a corner, center or border design, whether made up of a single motif, different motifs or a repeated motif.

Antique. Term used with reference to book decoration to designate blind tooling.

À petits fers. A French term used to describe tooling a design with small individual tools.

Arabesque. A kind of fanciful decoration combining foliage, fruits, flowers, curves and figures, which was perfected by Arabian artists.

Armaria. Cupboards for keeping books. A term used in the first centuries of the Christian Era.

Armarius. A monk who presided over a scriptorium.

Azured tool. A finishing tool with close parallel lines running diagonally across its surface.

Backbone. Same as Spine.

Bands. The covered cords or other material across the spine of a book which divide it into segments.

Bead. The twisted stitch formed in headbanding.

Bench-made. Any work done on the workbench by hand.

Bibliophegus. The name used in early Christian times for bookbinder.

Bibliophegy. The term for bookbinding used in early Christian times.

Blinded-in. A design is said to be blinded-in, when it has been impressed on a book cover with heated tools.

Blind tooling. Impressing heated tools on leather by hand, without the use of gold. Sometimes referred to as antique.

Block book. A book printed from blocks of wood having the letters or figures cut on them in relief.

Block papers. Papers printed from blocks of wood or metal on which a design has been cut or engraved.

Boards.

1. Wooden or composition pasteboard covers used on the sides of books.
2. A general term used by binders for various stiff lining and mounting materials.

Boarding leather. Dampening leather and then rolling it with the hand or a piece of cork in such a manner as to make the natural grain more prominent or to induce a straight or pebble grain.

Book covers.

1. A term applied to the covered sides of a book.
2. Protective covers of soft leather, like doeskin, sewed fast to a leather-covered book. A custom in use during the Middle Ages and early Renaissance.

Book satchel. A bag used in mediæval times for carrying books. It was frequently hung on a cleric's habit cord or on a warrior's belt.

Book shrine. A box or casket used in mediæval times to hold sacred books.

Bosses. Brass or other metal pieces fastened on the covers of books for the purpose of preventing the leather from being scratched or for an ornamental value.

Bound book. A covered book the sections of which have been sewn around cords or some other material, the ends of which are laced through the cover boards.

Bradel binding. A type of temporary binding said to have originated in Germany, and first adopted in France by a binder named Bradel. Known in France as "cartonnage à la Bradel."

Brochure. A sewed book with a paper cover.

Brush-pen. A pen, with a fibrous point, made of a reed, used for writing on papyrus.

Cambridge style. An English style of book decoration characterized by double panels with a flower tool at each of the outer four corners.

Cameo binding. A binding decorated with a cameo stamp. Also called a "plaquette binding."

Cameo stamp. A stamp cut intaglio like a seal.

Capsa. A term used on the Continent in early times to denote a book box or book shrine.

Cased book. A book which is held to its covers, or casing, only by means of pasted-down end papers, which are sometimes reinforced.

Casing. Cover of a book made separately and pasted to the book by means of end papers.

Catenati. Chained books.

Chain lines. The narrow numerous lines in a sheet of paper made by wires in the "mould."

Chain marks. Same as chain lines.

Champlevé. A method of enameling in which the enamel is embedded in cavities hollowed out of metal plates.

Chevrotain. A term used in England for a kind of leather fabricated from the hides of the small guinea deer. Also called "cheveril."

Clog almanac. An early kind of calendar made usually of a four-sided piece of wood with notches cut on it to denote the days of each month of the year.

Cloisonné. A kind of enamel inlay work set between metal strips on a metal or porcelain ground.

Codex. A manuscript written on papyrus or vellum, square in shape, and bound in flat form, originating in the early Christian Era.

Colophon. A paragraph put at the end of a written or printed book, containing information as to the identity of the scribe or printer, place of origin, date of printing, and sometimes other related matter. In extensive use until after about 1570. Sometimes referred to as an imprint.

Comb pattern. A pattern produced on marbled papers or other surfaces from a vat in which colors have been combed to form a pattern.

Commercial binder. A term used to denote a binder who turns out publishers' editions in "casings," using machinery for the work. Better termed a machine binder.

Cords. The material around which the sections of a book are sewed.

Cottage style. A style of book decoration associated with the "Mearne binder," in which a cottage gable is outlined.

Couch. To turn a sheet of paper from a mould onto a felt pad, during the process of making paper by hand.

Cover boards. Same as "boards": 1.

Cropped. A book is said to be cropped when its margins have been injured in cutting.

Cropping. Cutting the edges of a book beyond the shortest, or proof, sheet.

Cuirbouilli. A word used to describe a kind of book decoration in which the leather cover is modeled and hammered to raise the design in relief.

Cuir-ciselé binding. A binding with a design cut into the leather cover instead of being stamped or tooled on it.

Cumdach. A casketlike book box, sometimes called a book shrine, used in Ireland in early times.

Cusped-edged stamp. A stamp used by Bavarian, Austrian and South German binders employed in a manner to form a leaf effect. Sometimes described as "a headed-outline tool."

Deckle edge. The rough or irregular edge produced on a sheet of paper when in process of being made. Especially characteristic of handmade paper.

Dentelle. A type of border decoration in gold leaf composed of small tool forms that touch each other near the edges of a book cover and end in a delicate lacelike pattern pointing toward the center of the cover.

Dentelle à l'oiseau. A dentelle design in which birds are introduced.

Diaper design. A design in which a motif is frequently repeated at regular intervals, usually in lozenge forms.

Diced leather. Leather, usually calf, ruled with crossing diagonal lines which form a diamond pattern.

Diptych. A two-leaved hinged tablet made of wood, ivory or metal, with inner surfaces of wax, on which writing is impressed with a stylus.

Doublure. The lining of silk, leather or other material on the inside of book covers.

Drawn pattern. A term used to define a type of marbled paper the pattern on which was transferred to it from a pattern drawn on the surface of a marbling vat.

Ducali bindings. A term applied to the Venetian bindings of the decrees of the Doges which are decorated with a combination of Oriental and Western techniques.

Embossed. A design is said to be embossed when it is raised in relief.

End papers. The extra unprinted papers placed at the beginning and the end of a text, a sheet of which is pasted down on the inside of the front and the back book covers.

Etruscan style. A style of binding, originating in the 18th century, characterized by a calfskin cover which is stained with acid and decorated with classical ornaments.

Extra binder. A hand binder who uses the best materials and employs the soundest methods of construction and who usually decorates each binding with a design especially made for it.

Extra binding. A term used to denote a binding done by hand with especial care.

Fanfare. A style of book decoration said to have been initiated by the Eve binders of France, in which the book cover is divided into geometrically formed compartments bounded by fillets, and is profusely decorated with small tools and branching foliage.

Fanning out. Manipulating a pile of book sections, sheets of paper or boards so that each unit is exposed under the other a short distance along one edge.

Fanning over. Same as fanning out.

Fillet. A cylindrical revolving metal finishing tool mounted in a wooden handle and used for running lines or designs on a book cover. Sometimes called a roulette or a roll.

Finishing. All the work done on a binding after it has been covered in leather. The workman who does this work is called a "finisher."

Fleuron. A conventional flower or an anomalous type of ornament floral in character.

Flyleaves. All the free leaves of an end-paper section, but when used in the singular, the term denotes the uppermost free leaf of the section next to the cover board.

Folio. A book made up of sheets folded only once.

Fore-edge. The edge of a book opposite the folds of the sections.

Format. In bibliographical parlance, a term used to indicate the number of times the original sheets have been folded to form the sections of a book.

Forwarding. The branch of bookbinding that takes the book after it is sewed, and completes the binding through the covering process. The workman is called a "forwarder."

French shell. A term applied to marbled surfaces with a shell-like pattern on them. Made on paper in France in the late 18th century.

Full-bound. When the entire back and sides of a book are covered with leather the book is said to be full-bound.

Full-gilt. A term applied to books with all edges gilded.

Functionalism. The adaptation of structure to the use of an object.

Gathering.

1. A section or signature of a book.
2. Collecting the sheets when folded and placing the sections in sequence.

Gauffered edge. A book-edge decorated with a design tooled in over the gilded edge, and frequently colored.

Gesso. A prepared coating material applied to a surface as a groundwork for color.

Gilder. The workman who gilds the edges of books.

Gilding. The process of burnishing gold leaf on the edges of books.

Gilding boards. Boards similar to cutting boards which are used when gilding the edges of books.

Gilding press. A screw press used for holding a book when in the process of gilding.

Girdle book. A type of book used in the Middle Ages and early Renaissance which had secured to it an extra protective cover of soft leather fashioned in such a manner that the book could be hung from a girdle or from the habit cord of a cleric.

Glaire. A liquid deposited from the beating up of white of egg and vinegar or water used to size tooled impressions before laying on gold leaf for gold tooling, and for sizing book edges before gilding.

Gold leaf. A thin leaf of gold beaten out of a block of gold.

Grain of paper. The grain of paper is constituted by the main direction taken by its fibers.

Grooved boards.

1. Cover boards with grooved edges, peculiar to Greek bindings.
2. Cover boards that are cut out to receive the slips of a book.

Guild or Gild. A fraternal organization of free craftsmen for the purpose of protecting their rights.

Half binding. A book covered over the back and partly on the sides with leather, and with some other material on the sides, is said to be a half binding.

Harleian style. An English style of book decoration with a center motif composed of small tool forms usually arranged in a lozenge-shaped design, and having a border decorated by means of an engraved roll. This style was named after Lord Harley, whose bindings were decorated in this manner.

Head. The head of a written or printed book is that part above the first line of writing or printing.

Headband. A silk-, linen- or cotton-covered band stretching across the head edge of a book and resting along the contour of the back of the book.

Headcap. The shaped folded piece of leather that covers the headband.

Head-outline tool. Same as cusped-edged stamp.

Hinge. The material which is used to fasten the text of a book to its board covers.

Hollow back. A type of false back of hollow construction affixed to the back of an uncovered book.

Imprint. The subject matter on the lower part of a title page, concerning the place and date of publication, the publisher's name, and sometimes the name and address of the printer. The term is also applied to a colophon.

Inlays. Pieces of colored leather or other material set into a figured pattern, a border or panel. Now used interchangeably with "onlays."

Intaglio. If a design is cut on a tool in such a manner that when stamped on a surface it appears raised above a sunken background, it is said to be cut intaglio.

Jansenist binding. A French style of binding the covers of which are decorated only with blind lines. From the severity of its style, it was named after the Roman Catholic Jansenists.

Job binder. A binder who does mostly hand binding for the trade.

Joint. The groove formed along the back of a book to hold the cover board.

Kermess. Originally the feast of dedication of a church. Later, an annual festival or fair held in the Low Countries, French Flanders, and in France.

Kutch. A receptacle for holding a thick piece of gold when it is being beaten into thin leaves.

Laid lines. The broad lines seen through a sheet of paper running across its width, made by the heavy wires in the bottom of the "mould."

Laid on. Gold leaf is said to be "laid on" when it has been applied over a surface to be tooled.

Laid paper. Paper made in a mould in the bottom of which heavy lines of wire are fastened.

Librarii. A word used in mediæval times signifying scribes.

Lithograph papers. Papers decorated by means of being printed from lithographic stones on which designs have been drawn.

Looper. A special kind of needle used on a book sewing machine.

Lozenge. A diamond-shaped figure, or a square figure placed from one of its points; usually decorated.

Lyonnaise. A name given to a style of binding with broad interlaced strapwork usually painted, or a style in which the binding is decorated with large corner ornaments and with a prominent center design, the all-over

background being filled in with dots. These styles are, however, not peculiar to Lyons bindings.

Marbled paper. Paper that has had a colored pattern put on one surface by the process of marbling.

Marbler. The workman who marbles paper, leather, and the edges of books.

Marbling. The art of veining a surface by floating colors on size in a design and transferring the colored design to leather, paper, or book-edges.

Marbling comb. An instrument with teeth like those in a comb used in forming patterns for marbled papers and other surfaces.

Marbling vat. A vat in which colored patterns are floated on a sized surface of water for the purpose of transferring them to paper or to some other surface.

Margins.

1. The unprinted spaces around the written or printed text of a book.
2. The turned-over leather or other covering material on the inside of book boards.

Monopolies. Exclusive privileges granted by the crown or state to individuals or groups of men, for their pecuniary advantage.

Mosaic. A term applied in bookbinding to inlaid designs; especially to bindings of A. M. Padeloup.

Mould. A frame for making paper. Also, a receptacle used in gold beating.

Mudéjar binding. A type of Spanish strapwork binding made by Moorish binders.

Ogee tool. A double-curved finishing tool sometimes in floral outline.

Onlays. Pieces of thin colored leather or other material pasted over an outlined tool form, border or panel. Usually referred to as "inlays."

Orihon. A book composed of a continuous, folded, uncut sheet that is stabbed along one side and held together by cords laced through the stabbed holds. A "stabbed binding" of oriental origin.

Palimpsest. A book composed of sheets of parchment or vellum on which a new writing is done over writing that has been scraped off or erased.

Panel. The space on the back or side of a book bounded by joined lines.

Panel-stamped. Stamped with one or more decorative panels by means of heavy pressure.

Papyri. Ancient scrolls, books or fragments of the same, written on papyrus.

Papyrus. A kind of writing material made from the stems of a reedlike plant which grows along the river banks of Abyssinia, Egypt, and Sicily.

Parchment. Sheepskin prepared with lime, like vellum.

Paste papers. Decorated papers made by imposing designs on their colored pasted surfaces.

Patté, or Patée. Spreading toward the extremity. In the case of a cross, having each of its arms narrow at the center and spreading toward the extreme ends.

Personal binding. A binding bearing the owner's initials.

Plaquette binding. See Cameo binding.

Plough. The wooden implement equipped with a knife used by hand binders for cutting edges of books in a lying press.

Pointillé. A style used in decorating books initiated by Le Gascon in the 17th century characterized by the use of tool forms in dotted outline. The term is used also to denote a background covered with dots.

Polaires. Early Irish book satchels in which books were carried about.

Polychrome decoration. A style in book decoration characterized by the introduction of gold and various colors painted over the design.

Pounce. An adhesive preparative compound used under gold or colors.

Pugillares. Small wax writing tablets.

Quarto. A book made up of groups of four leaves, or eight pages.

Quaternion. A term used in the early Christian Era to denote a gathering of folded sheets of vellum in units of four leaves.

Quipus. A Peruvian name for a primitive method of record keeping and conveying messages used in Peru, for which colored knotted strings attached to a long cord were employed. A species of sign language.

Quire. A word formerly used in bookbinding to denote a "gathering" or a "section."

Repeat Design. A design made up of a repeated motif.

Roll. Same as fillet. Called by French binders "roulette."

Romantic style. In bookbinding decoration, an informal, nonclassical style in which fancy predominates.

Roundel. A double ring, usually with a center dot.

Russia leather. A leather tanned with willow bark, dyed with sandalwood, and soaked in birch oil.

Saddle. A part of a book sewing machine on which the sections of a book are placed when they are brought up under the sewing needles and loopers.

Saracenic. A name used in designating a style of decorative design originating among Mohammedan peoples such as the Arabic, Moorish, Alhambric, and Indo-Saracenic.

Sawn-in. A book is sawn-in when the back of the sections are sawed through for sinking the cords for sewing.

Scriptorium. A room set apart in a monastery, or abbey, for the copying of manuscripts.

Section. A term applied to each unit of folded leaves comprising a book.

Semis, or Semée. A term meaning sprinkled, borrowed from heraldry by the bookbinder to denote a type of design in which small tool forms are placed over a surface at regular intervals.

Shoder. A skin used by a goldbeater to hold the gold as it is being beaten.

Signature. The letters or figures placed under the foot line of the first page of each section of a book to indicate the sequence of the sections. The word is also used synonymously with section.

Spine. A term used to designate the covered back of a book on which the title is usually lettered. Sometimes called the backbone.

Sprinkled calf. Calfskin book covers that have speckled surfaces, produced by the application of acid, are said to be "sprinkled."

Sprinkled edge. A book-edge that has been covered with a sprinkling of color or colors.

Stabbed binding. A binding that is held together by cord laced through holes stabbed along its back edge.

Stamp. In mediæval times, a piece of metal engraved intaglio, used cold, for impressing a design on a surface either by hand or by means of a press. At the present time, a piece of metal with a design cut either intaglio or in surface outline, and impressed heated, by means of an arming or blocking press.

Stamping. In mediæval times, impressing an unheated, engraved stamp on a surface either by hand or by means of a press. In modern times, impressing a heated engraved stamp on a surface by means of an arming or blocking press.

Stationarii. Men commissioned by mediæval universities to attend to the production and distribution of books.

Straight-grain leather. A leather that has been dampened and rolled, or "boarded," to make the grain run in straight lines. An innovation accredited to Roger Payne.

Strapwork. Interlaced double lines, usually forming a pattern geometrical in character.

Stylus, or Style. A writing instrument pointed at one end, which was used in ancient and mediæval times.

Tail. The tail of a book is the end opposite the head.

Tailband. A band on the tail edge of a book woven over with silk or linen thread by which it is fastened to the book.

Title piece. A colored leather label, usually pasted on the back of a binding, on which the lettering of a book is done.

Tooling. The art of impressing a design on leather or some other material by hand, with heated tools.

Tools. The name applied in a specific sense to the engraved metal book-binder's tools with wooden handles which are used by hand, heated, to impress a design on a surface.

Tree-calf binding. A calf binding the sides of which have been stained with acid in such a manner as to form a treelike pattern over the entire cover.

Triptych. A hinged tablet like a dyptych, composed of three sections instead of two.

Vat-sized. Paper is said to be "vat-sized" when the size is put in the pulp before the pulp is used to form a sheet.

Vellum. A calfskin prepared with lime, and not tanned like leather.

Volumen. A Latin term used to signify a rolled form of book, or a scroll. The word from which "volume" is derived.

Waste.

1. Fragments of old books or spoiled and excess sheets of new books, frequently utilized by binders for lining purposes.
2. The extra sheets supplied to a binder to substitute in the event of spoilage.
3. Excess pieces of paper cut off by a binder.

Watermark. A device, or design, in a sheet of paper, which is made during the process of forming the sheet, representing a sort of trademark of the maker.

Whole binding. A binding with spine and sides entirely covered with leather.

Wire marks. The lines made in a sheet of paper, while it is being formed, by the wires in the bottom of the "mould."

Wove paper. Paper made in a mould which has a bottom of woven wire screening similar to woven cloth fabric.

Yawning boards. Cover boards that curl away from the text of a book.

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PLATES

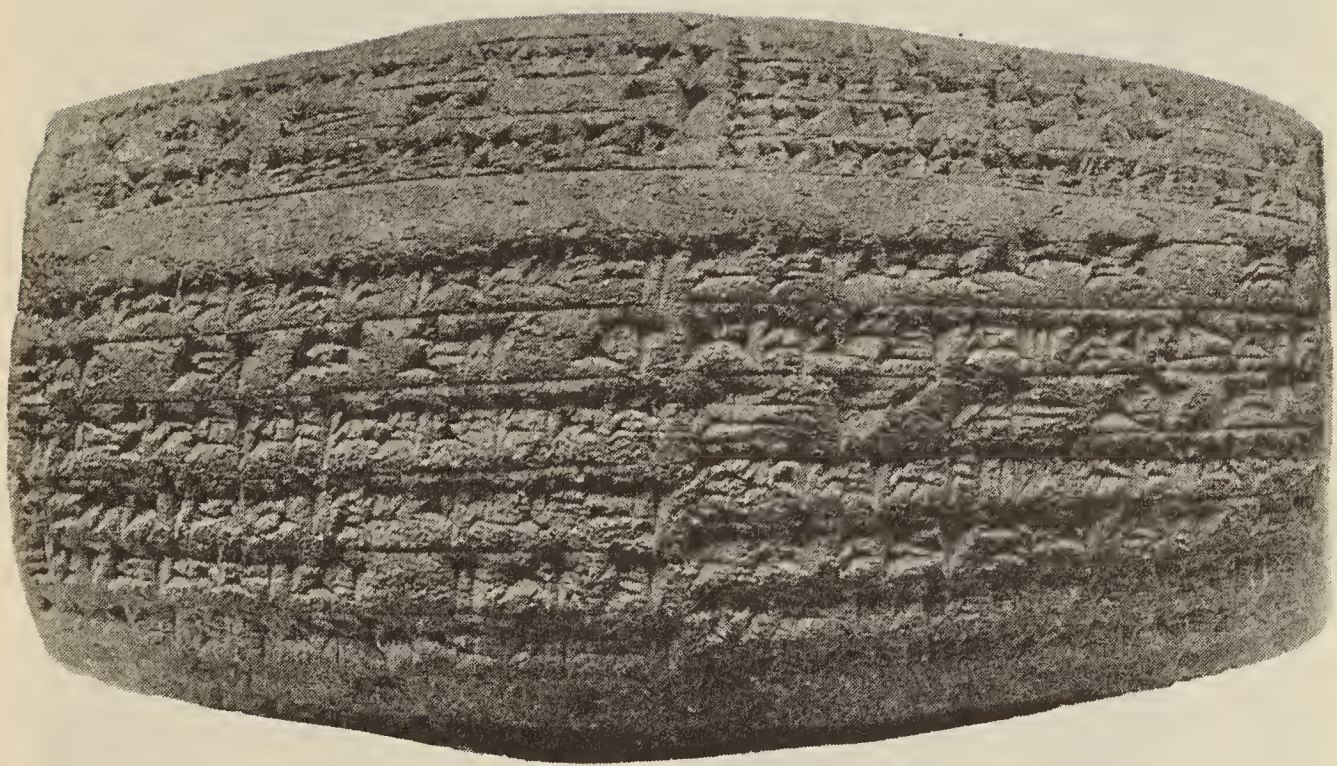


PLATE I. *Babylonian Clay Cylinder* (ca. 2200 B.C.).



PLATE 2. *Babylonian Clay Tablet.*

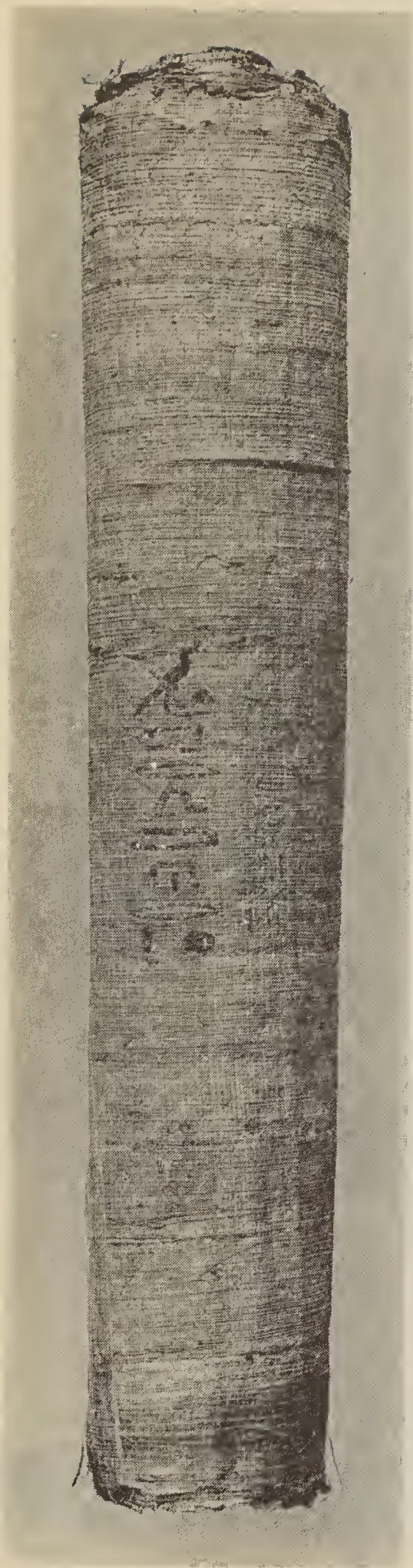


PLATE 3. *Papyrus Roll with Case* (ca. 1025 B.C.).

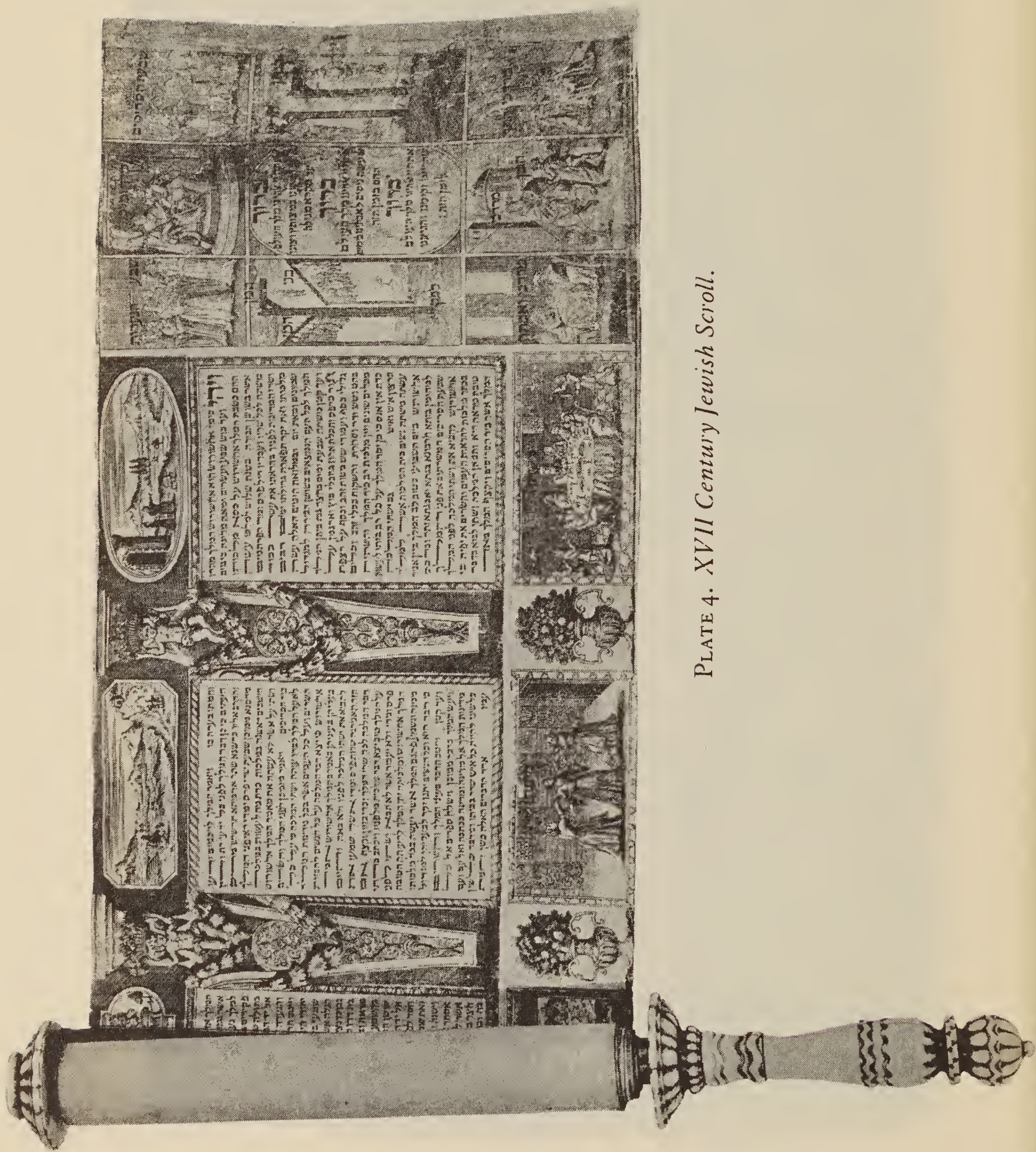


PLATE 4. XVII Century Jewish Scroll.



PLATE 5. XIII Century Enameled Binding.

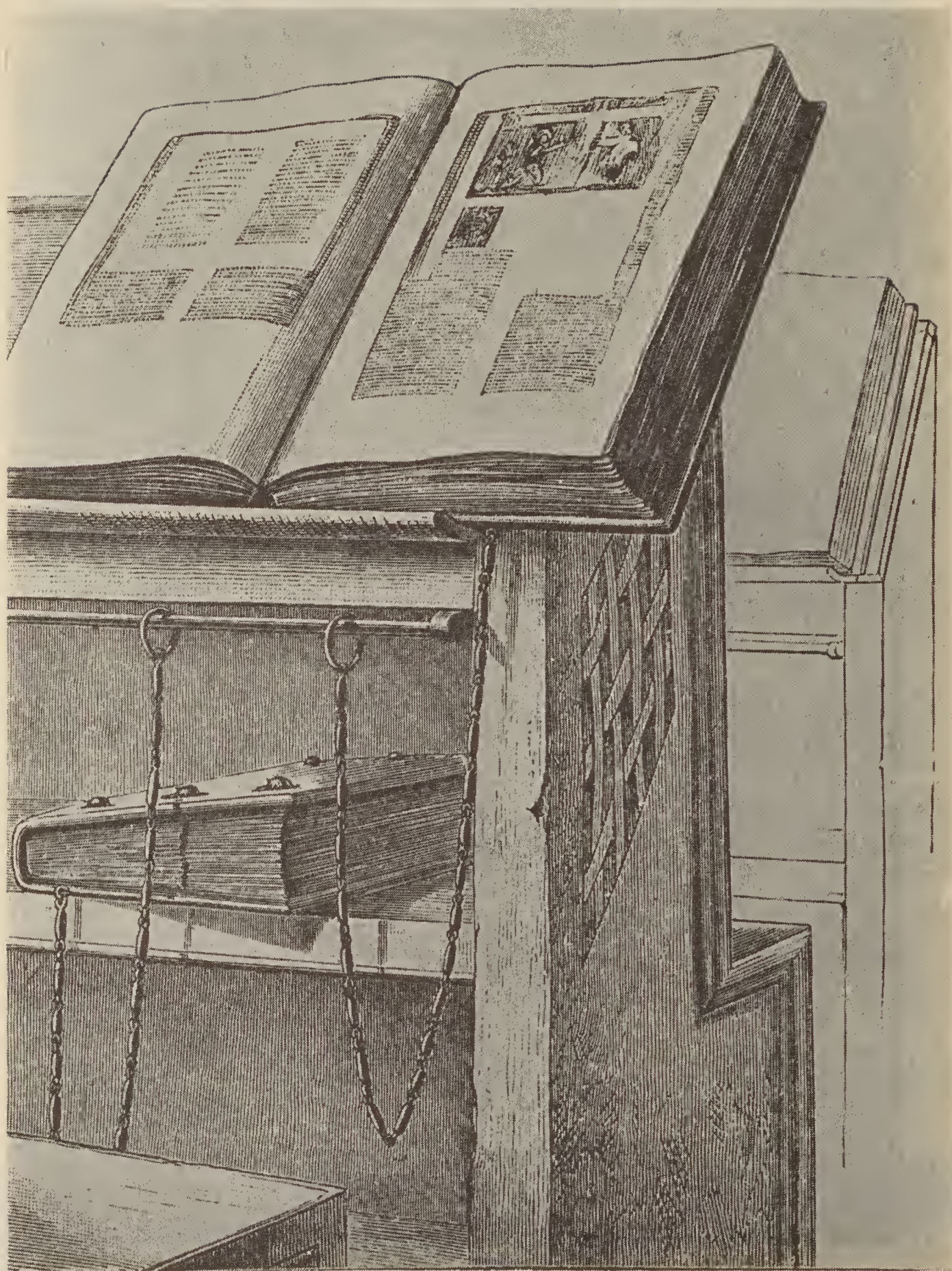


PLATE 6. *Book Chained to Reading Desk.*

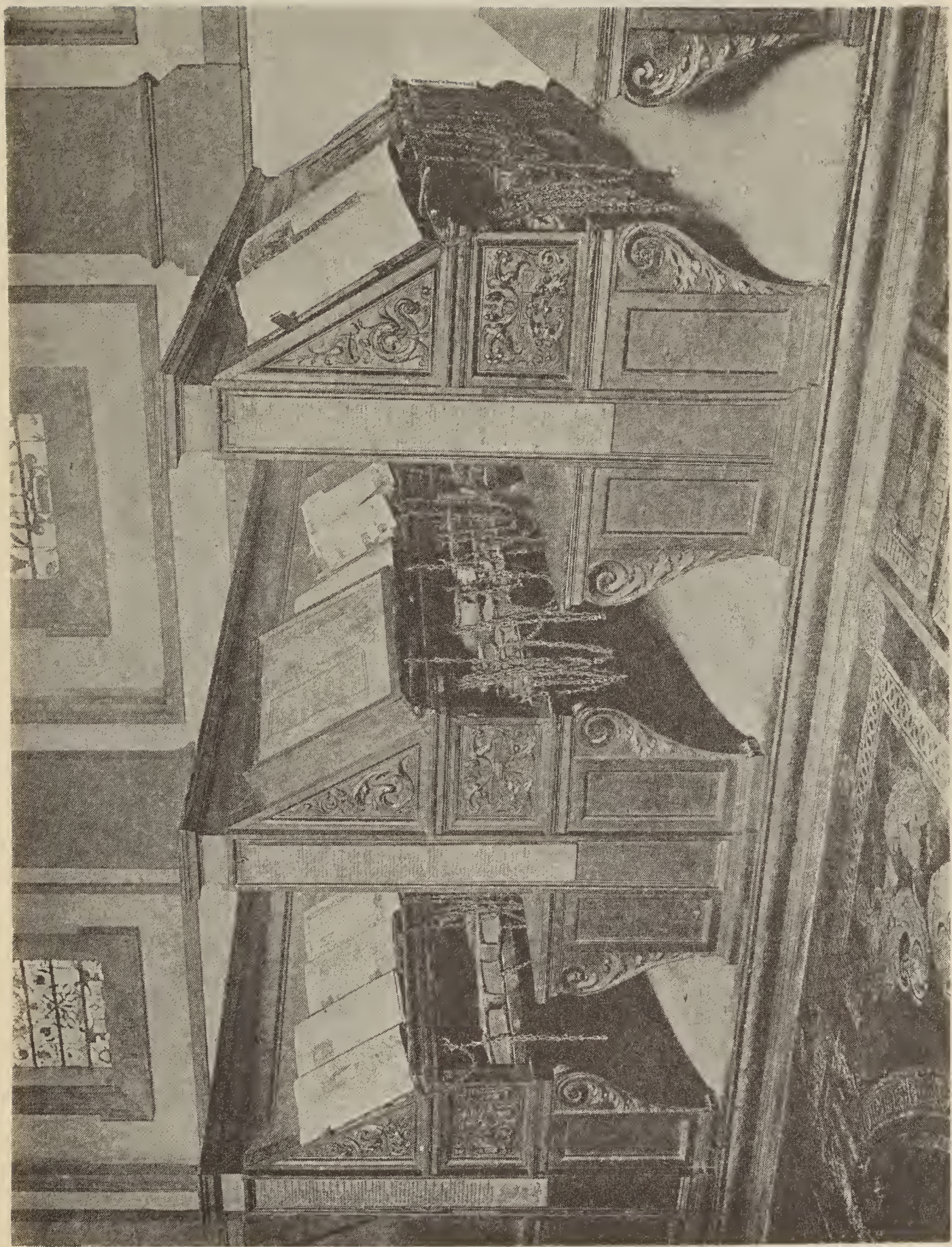


PLATE 7. *Laurentian Library.*



PLATE 8. *Hereford Cathedral Chained Library.*

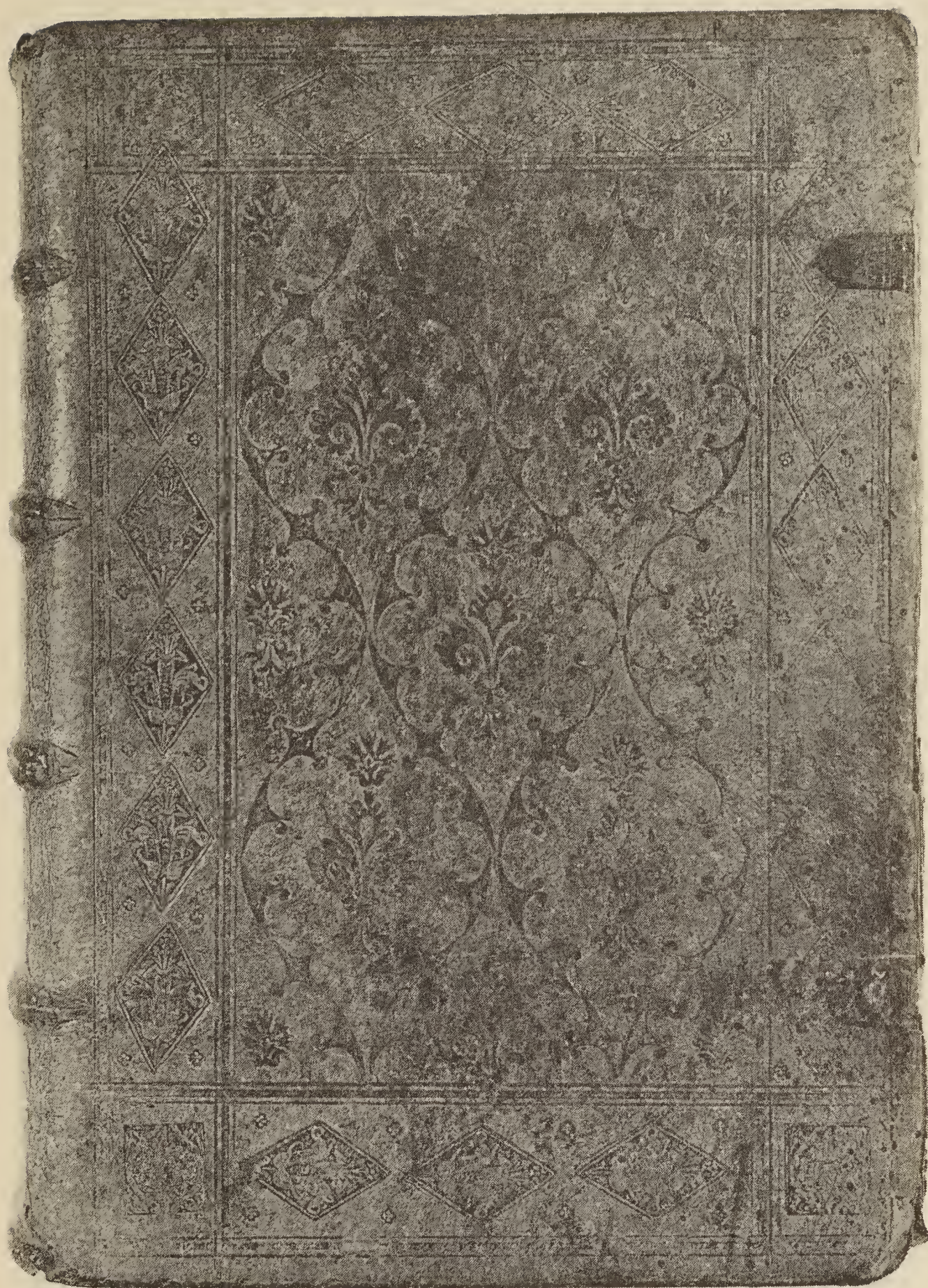


PLATE 9. *XV Century German Stamped Binding.*

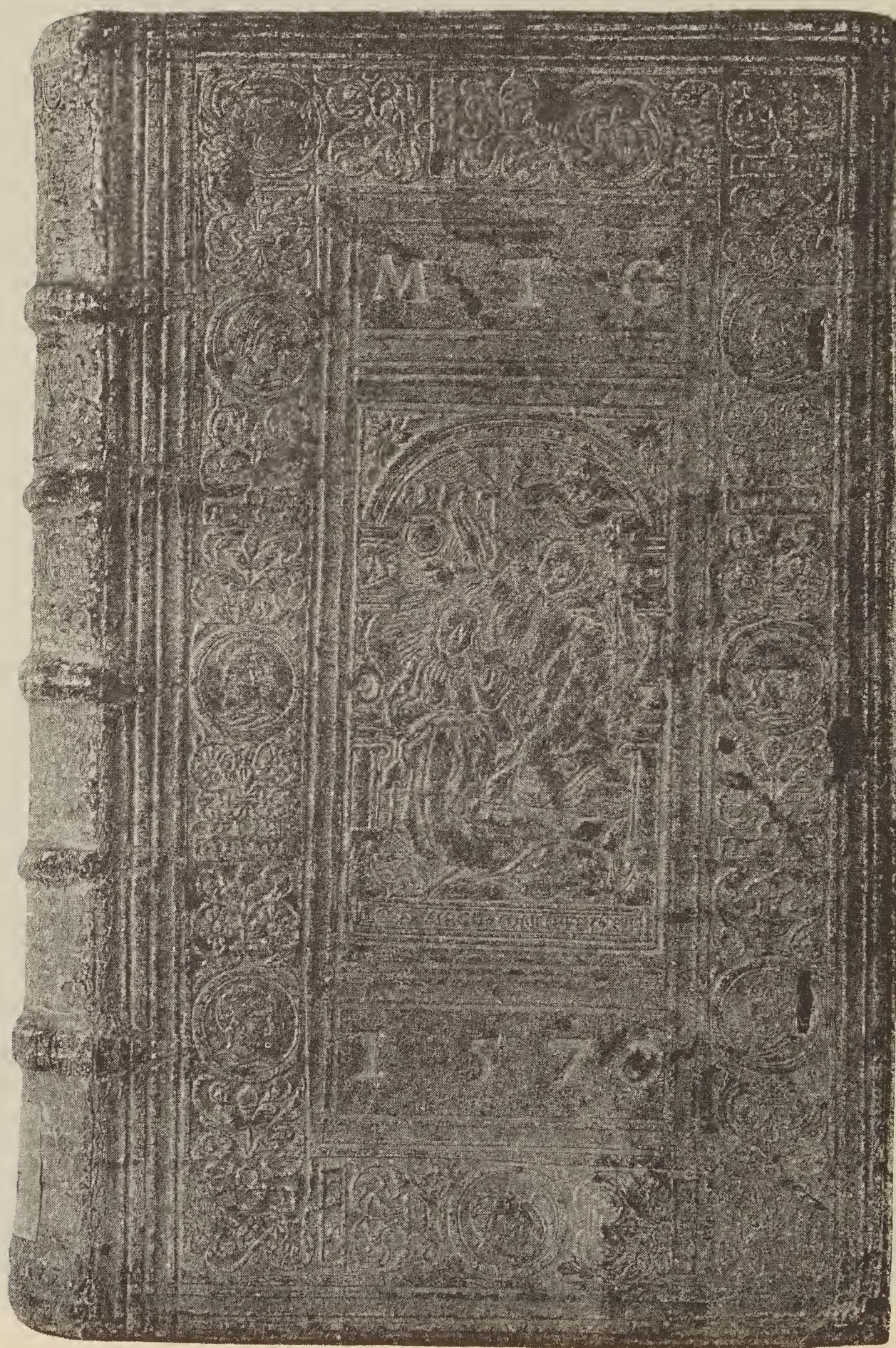


PLATE 10. XVI Century Panel-stamped Binding.

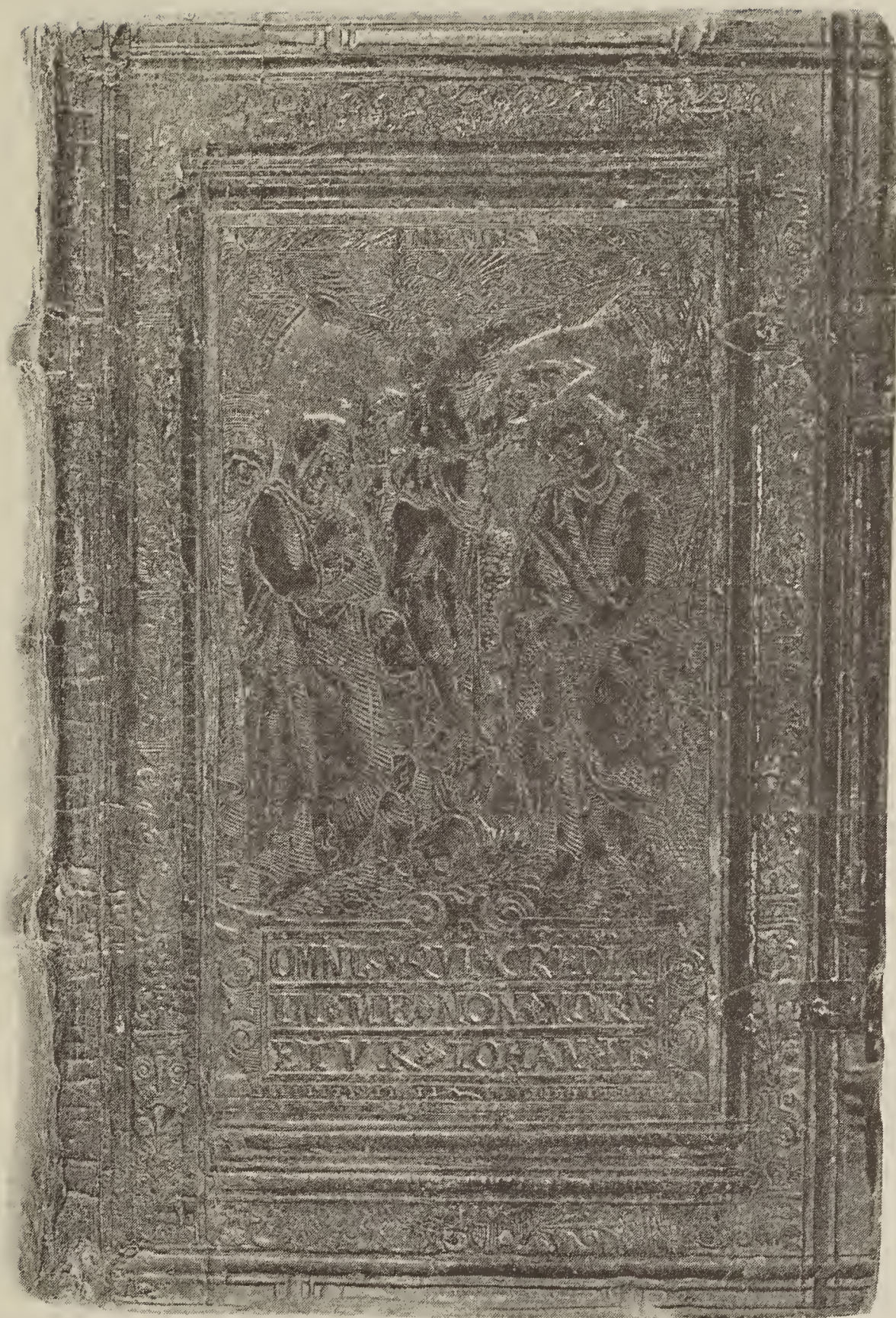


PLATE II. XVI Century German Panel-stamped Binding.



PLATE 12. *Cuir-ciselé Binding by Mair Jaffe.*

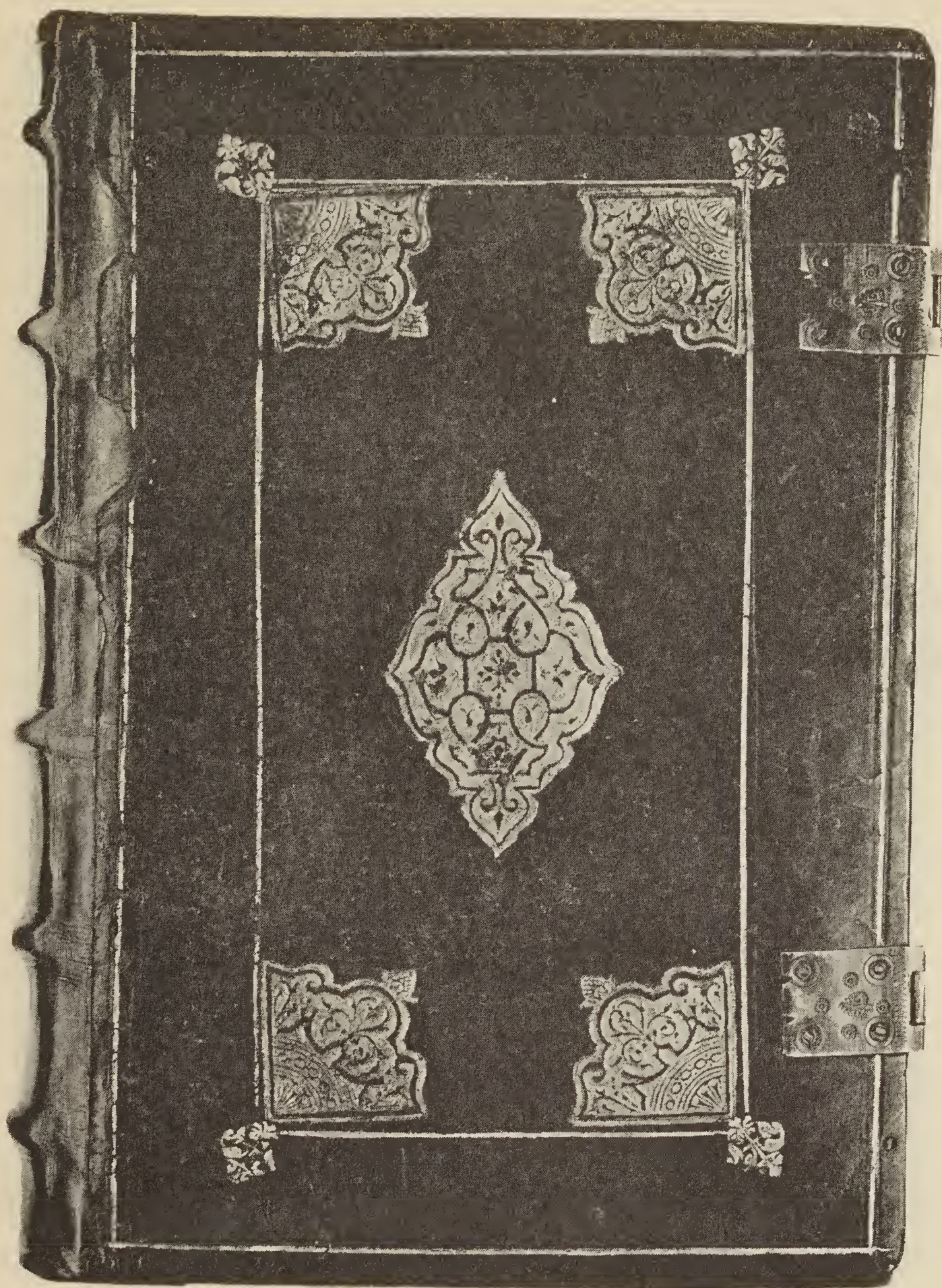


PLATE 13. *English "Trade Binding."*



PLATE 14. *XV Century Italian Binding.*



PLATE 15. *XVII Century Persian Binding.*



PLATE 16. *XV Century Italian Binding.*

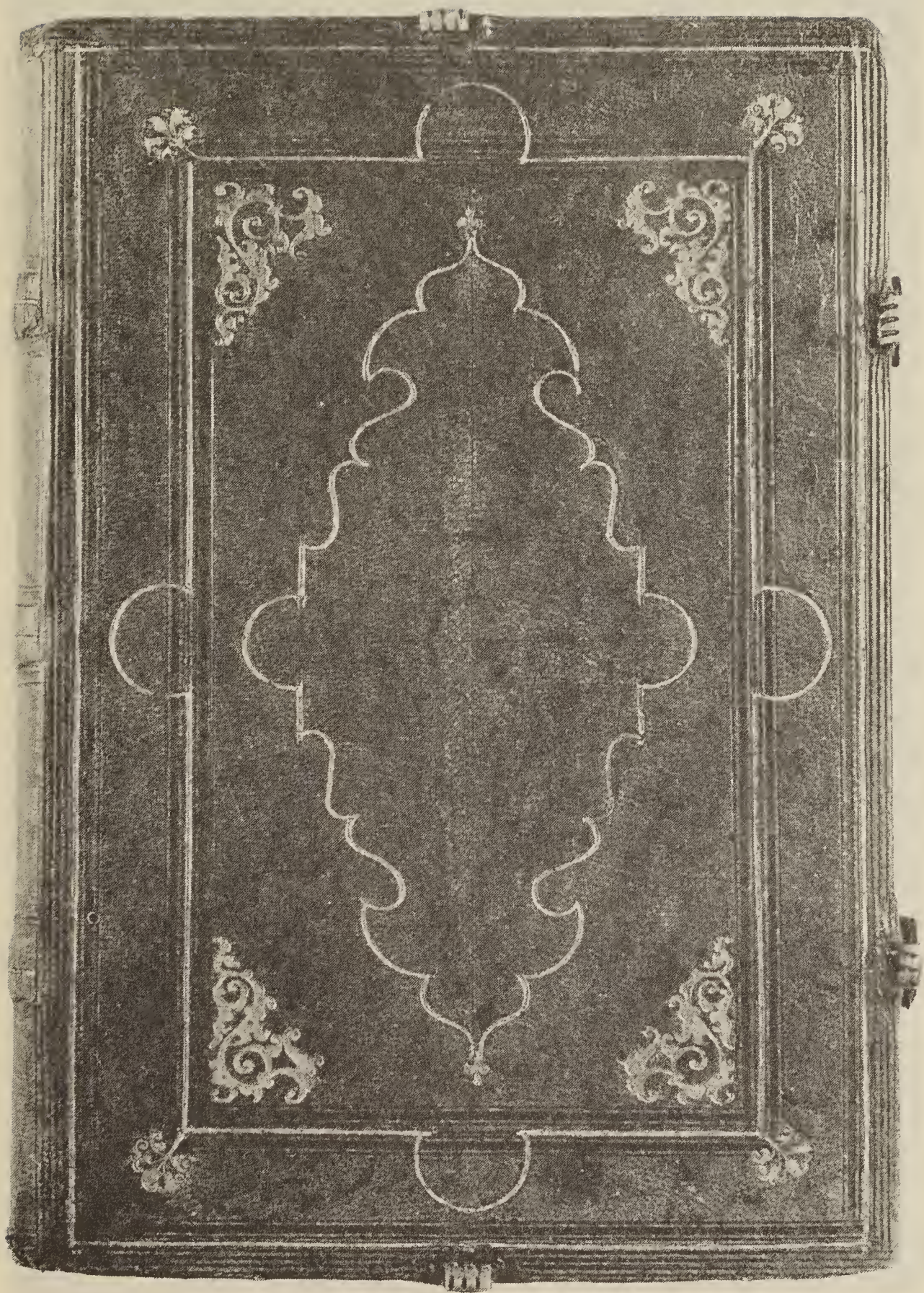


PLATE 17. XVI Century Venetian Binding.

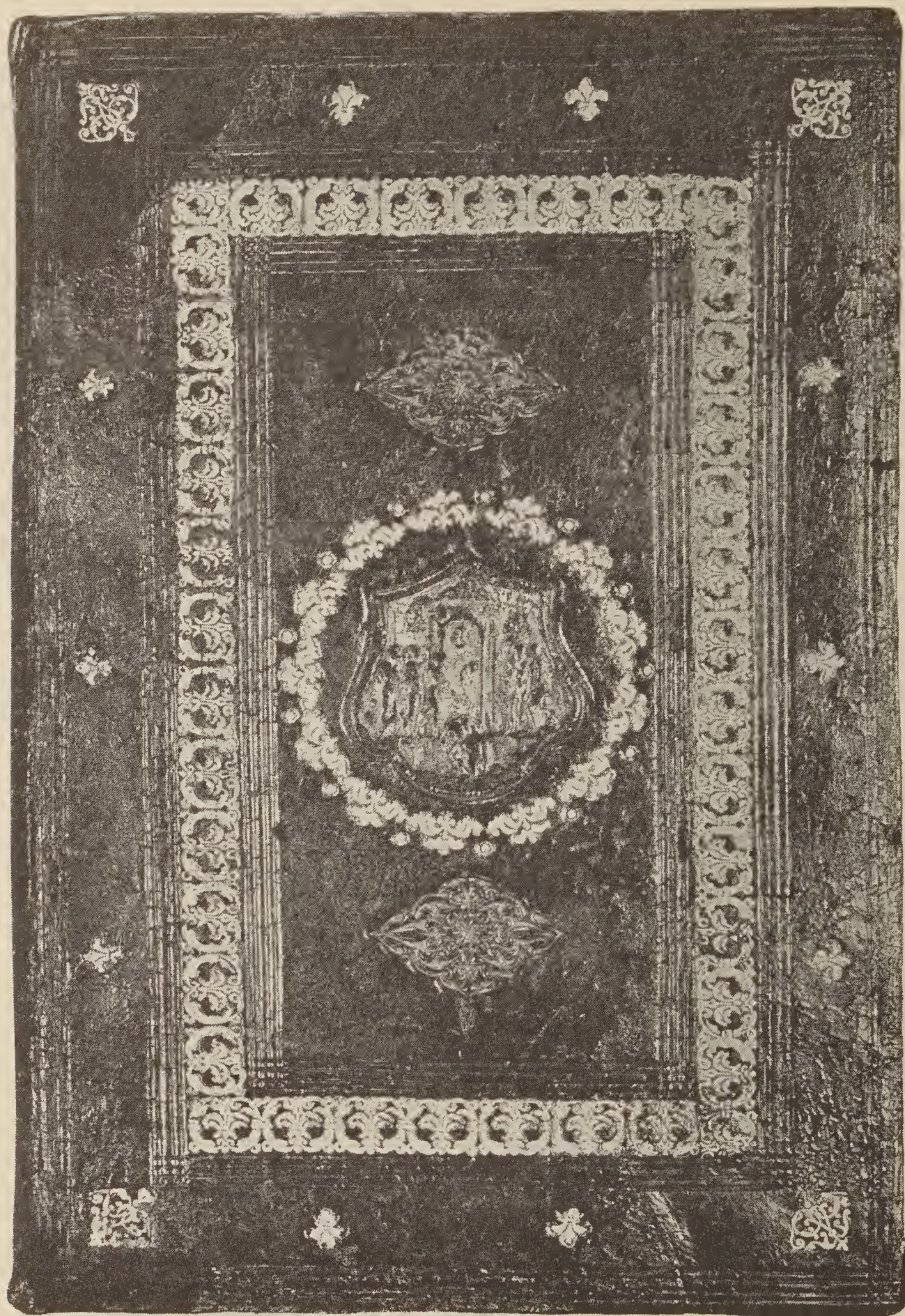


PLATE 18. *Grolier Plaque Binding.*

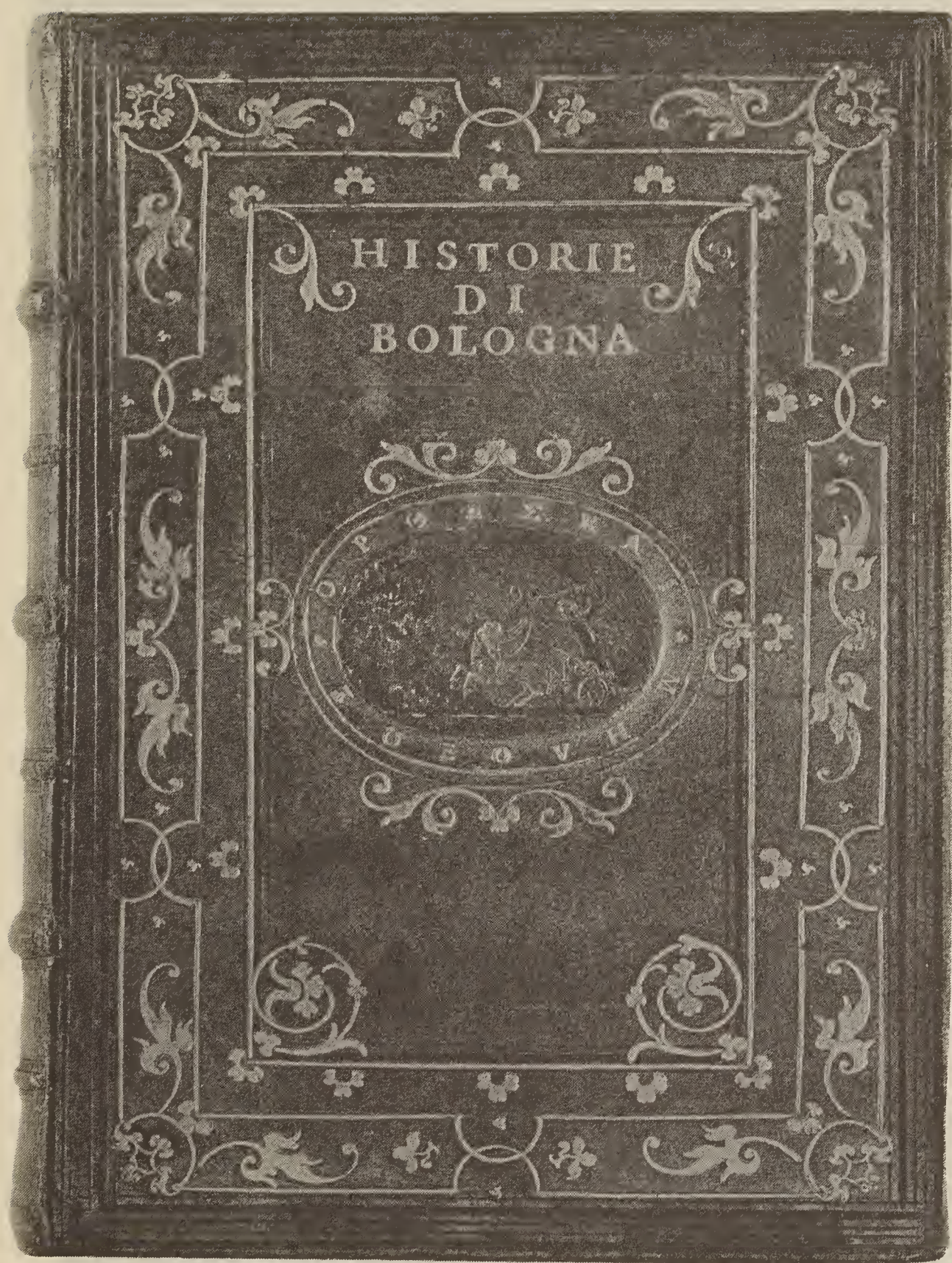


PLATE 19. "Demetrio Canevari" Binding.

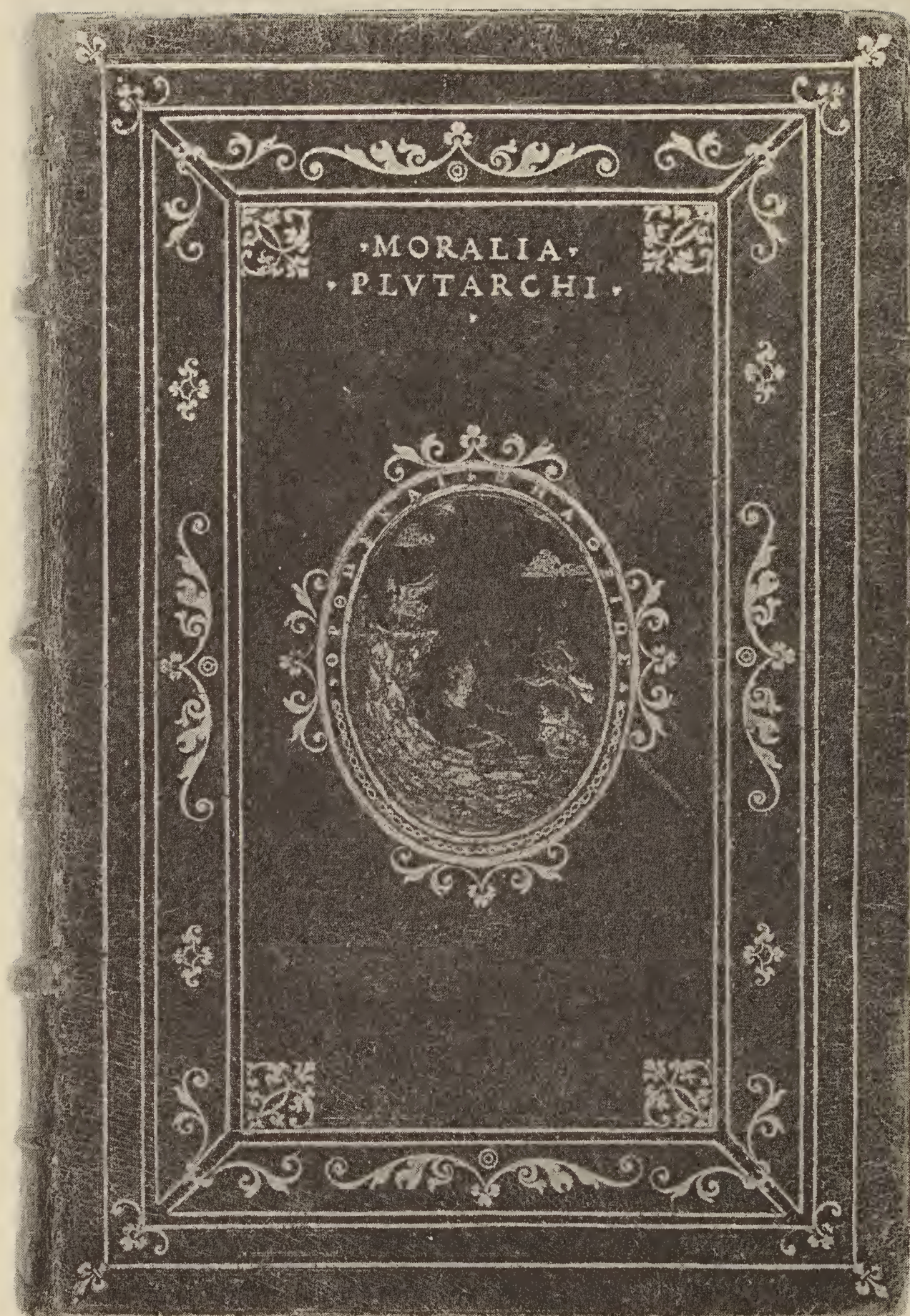


PLATE 20. XVI Century Plaquette Binding.

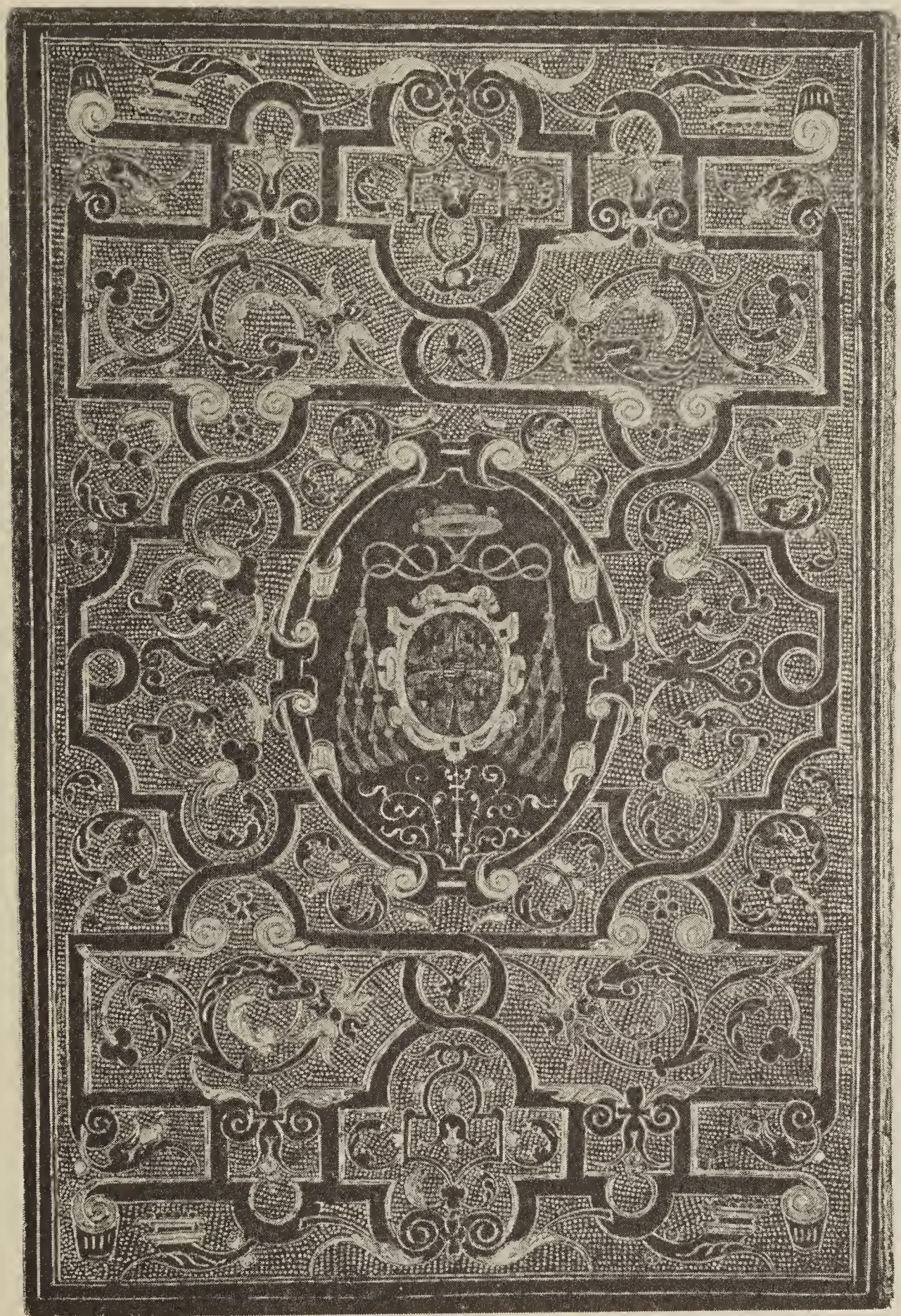


PLATE 21. *Italian Renaissance Binding.*



PLATE 22. *Spanish XI Century Book Cover.*

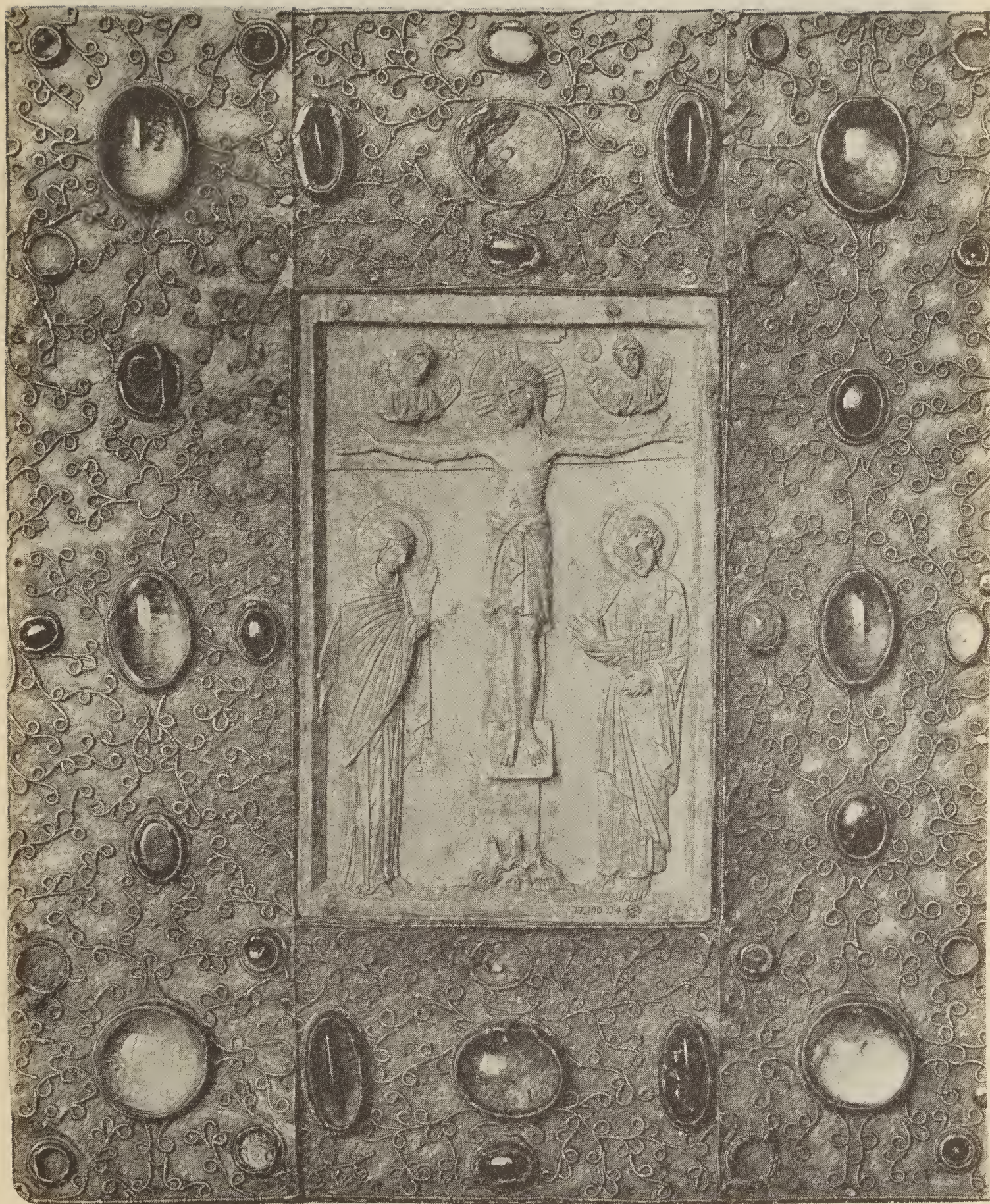


PLATE 23. *Spanish XI Century Book Cover.*



PLATE 24. *Spanish XVI Century Binding.*

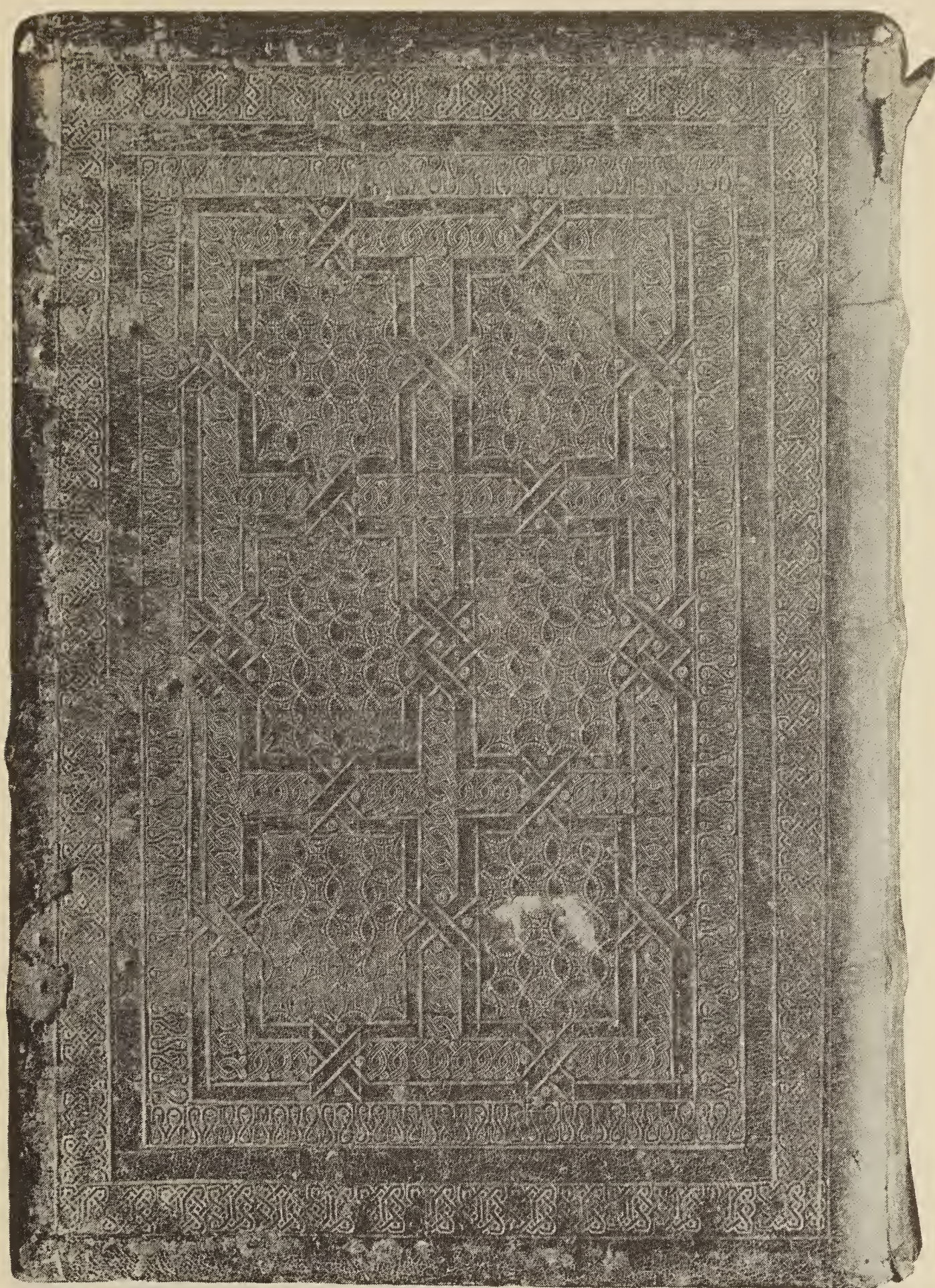


PLATE 25. XVI Century Mudéjar Binding.

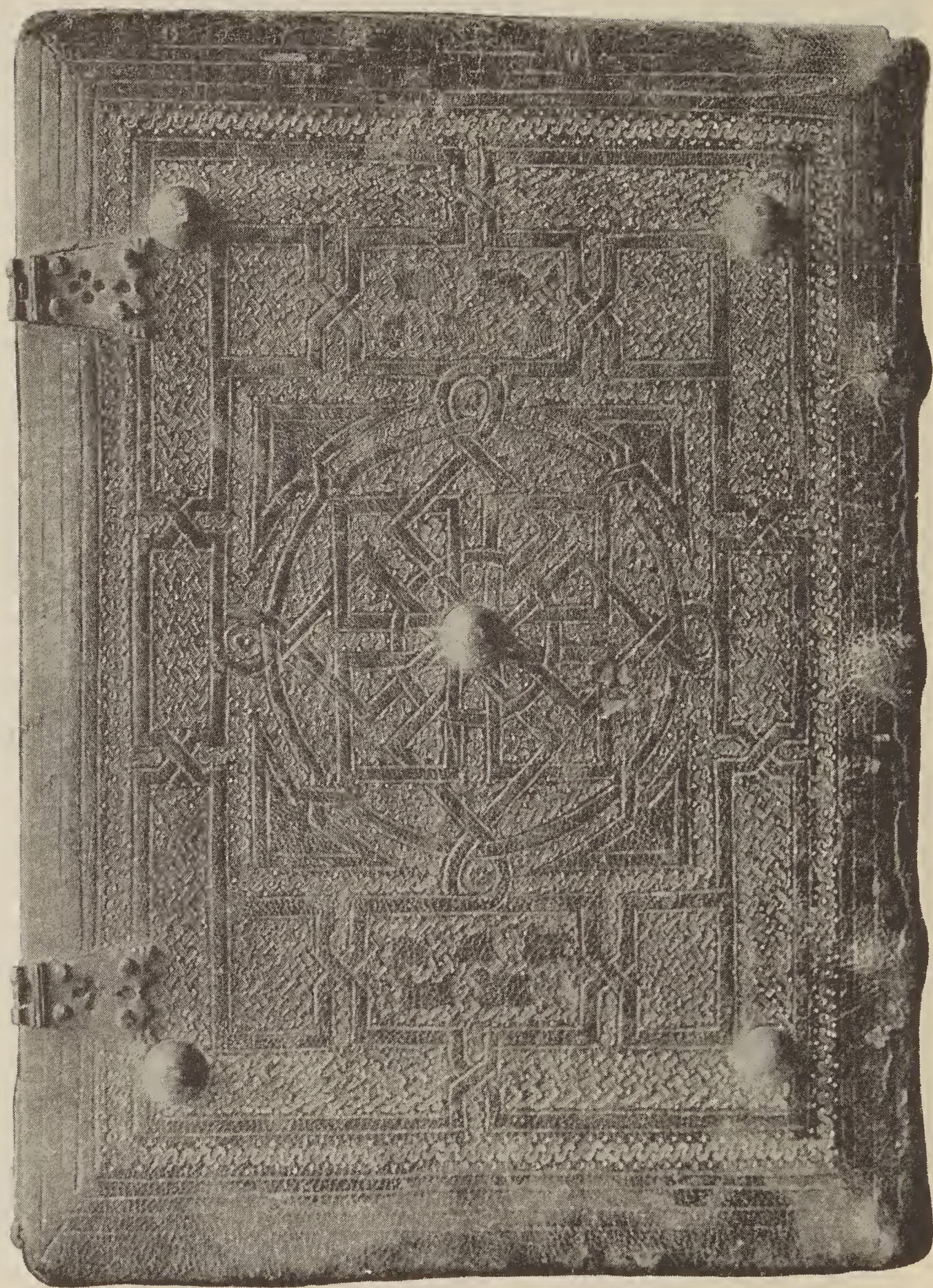


PLATE 26. XVI Century Mudéjar Binding.

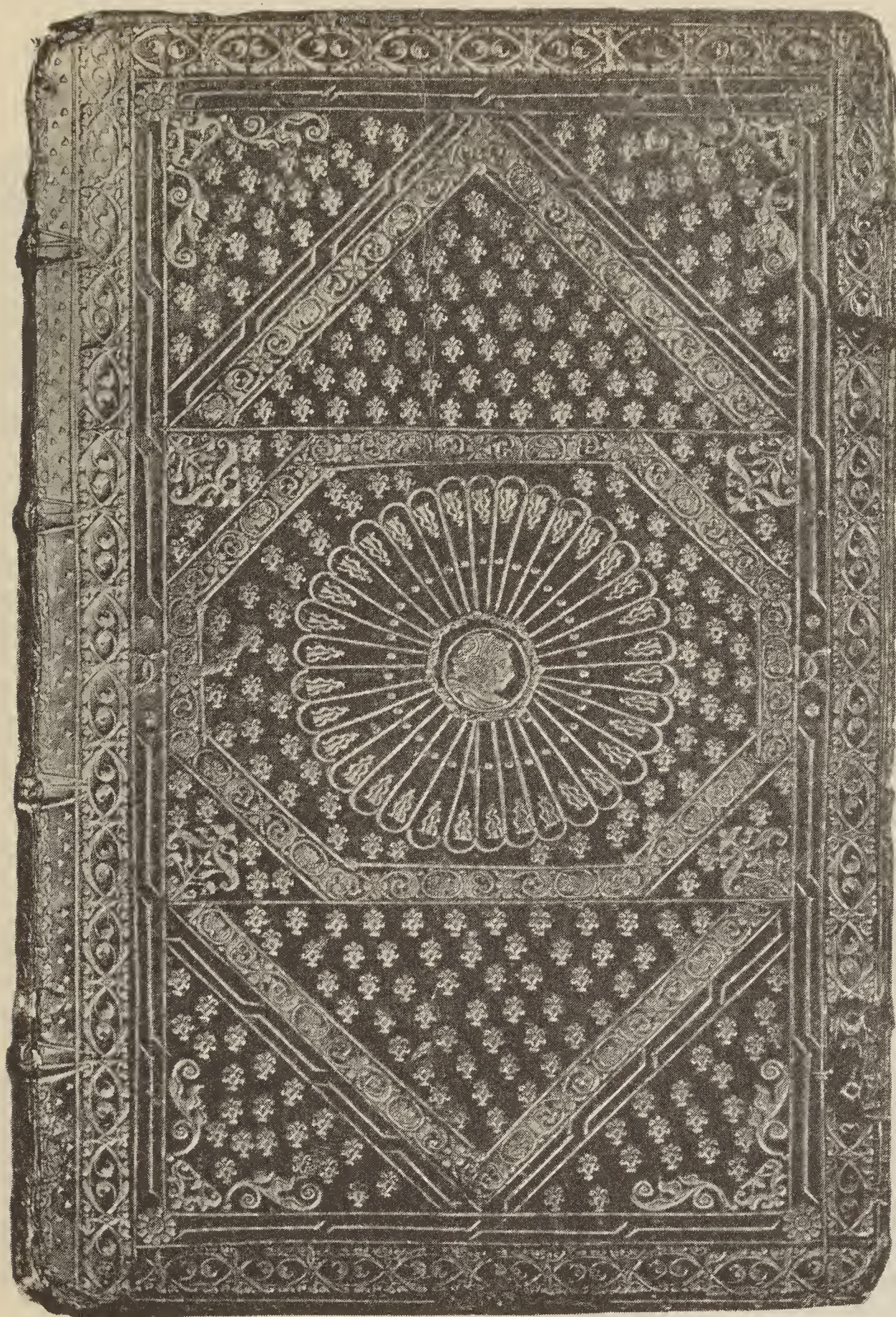


PLATE 27. *Spanish Renaissance Binding.*

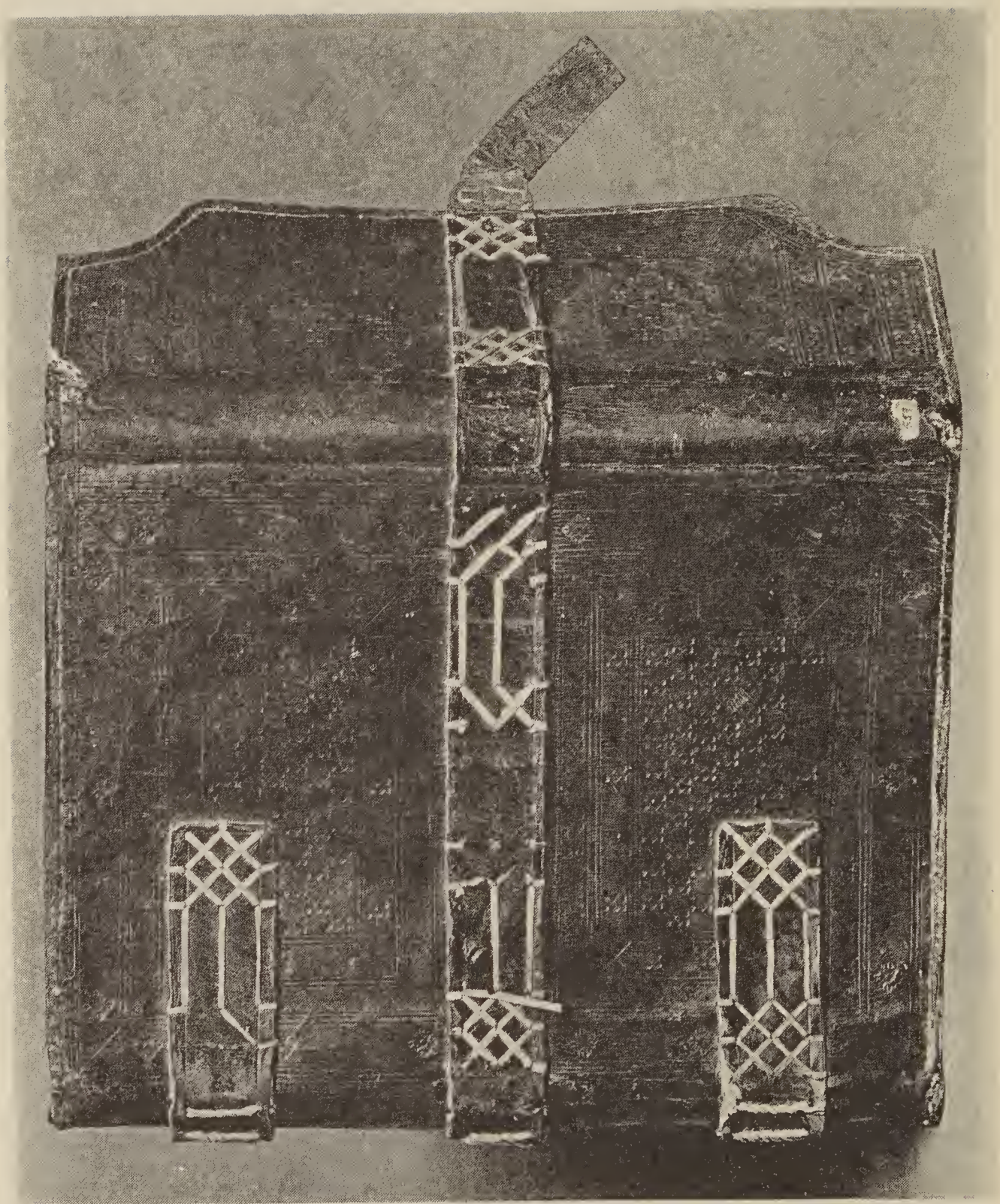


PLATE 28. *Spanish Binding.*

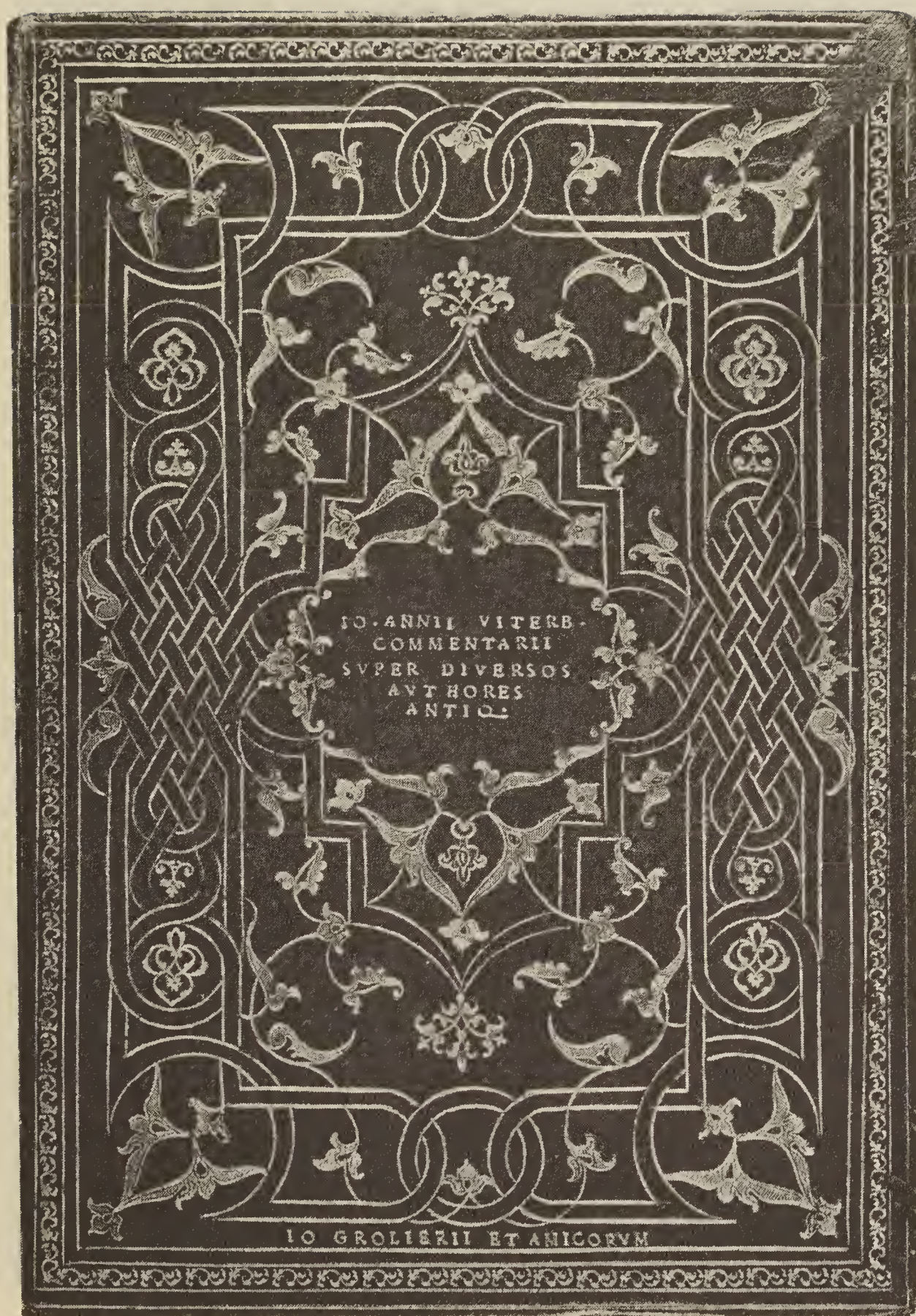


PLATE 29. *Grolier Binding.*

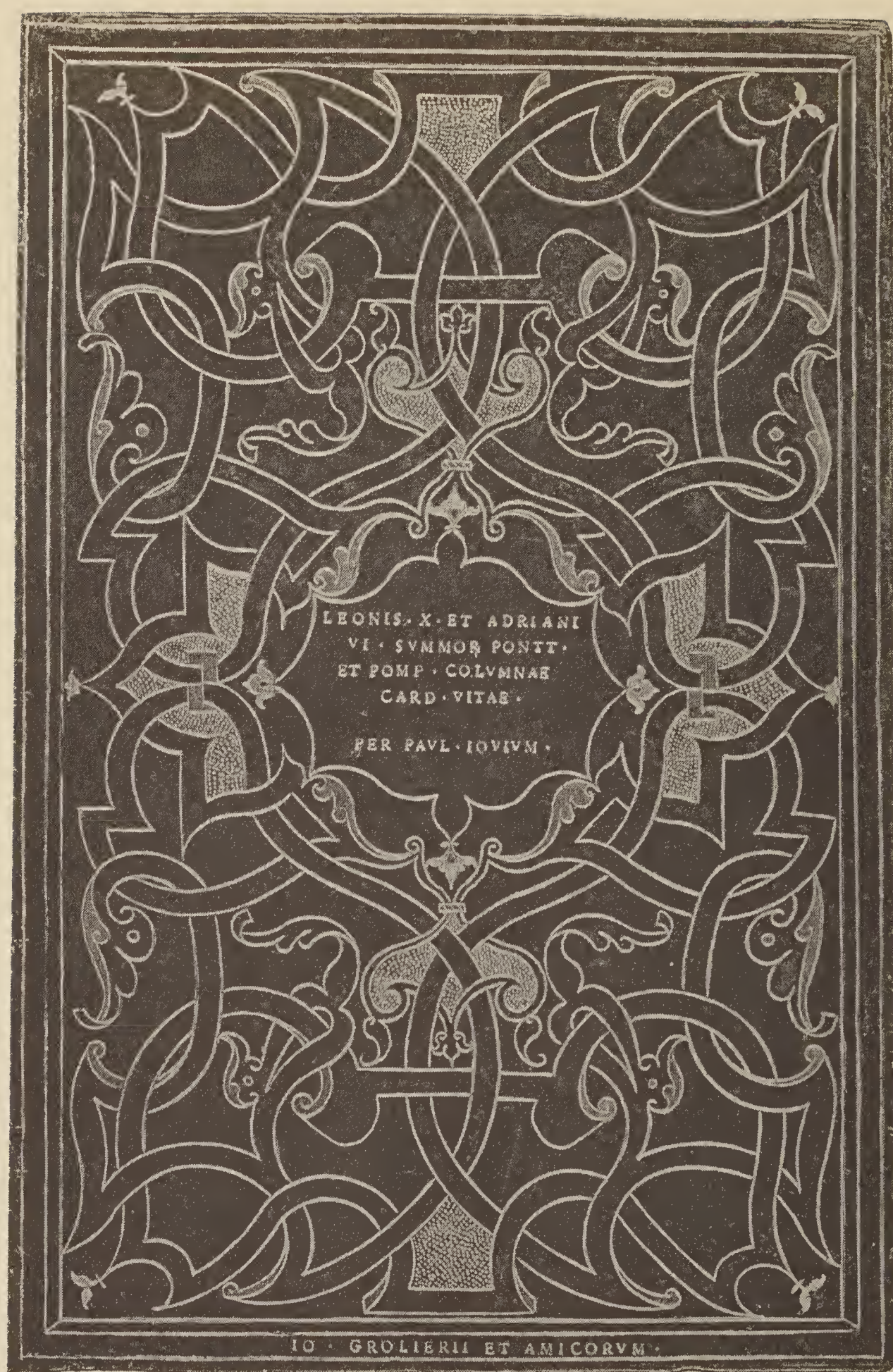


PLATE 30. *Grolier Binding.*



PLATE 31. *Thomas Mahieu Binding.*



PLATE 32. *Italian Portico Binding.*



PLATE 33. *Binding in a style called "Lyonnaise."*



PLATE 34. *François I Binding.*

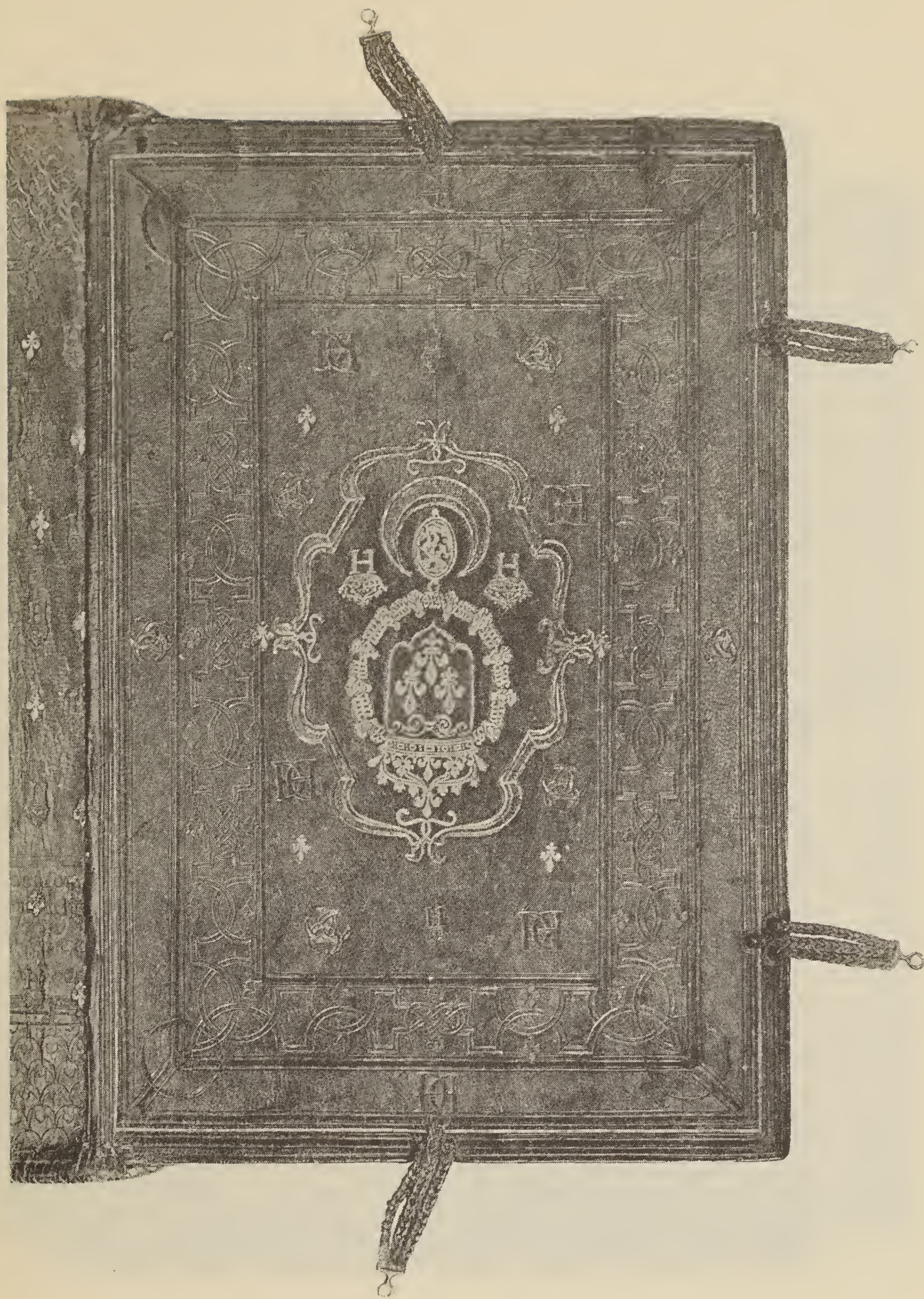


PLATE 35. *Henri II Binding.*



PLATE 36. *Diane de Poitiers Binding.*



PLATE 37. *Binding by Clovis Eve.*



PLATE 38. *Binding by Nicholas Eve.*

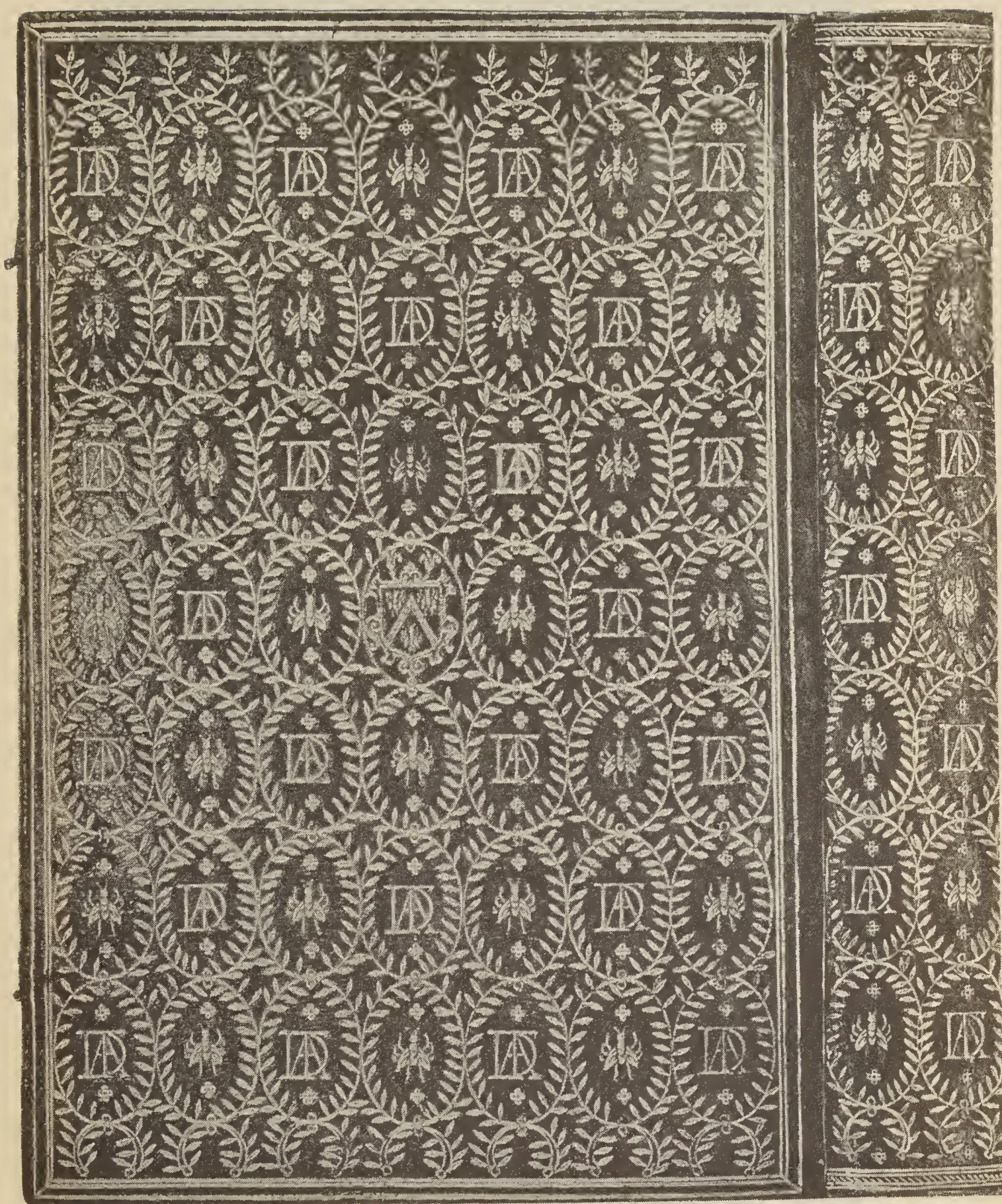


PLATE 39. *Binding by Clovis Eve.*

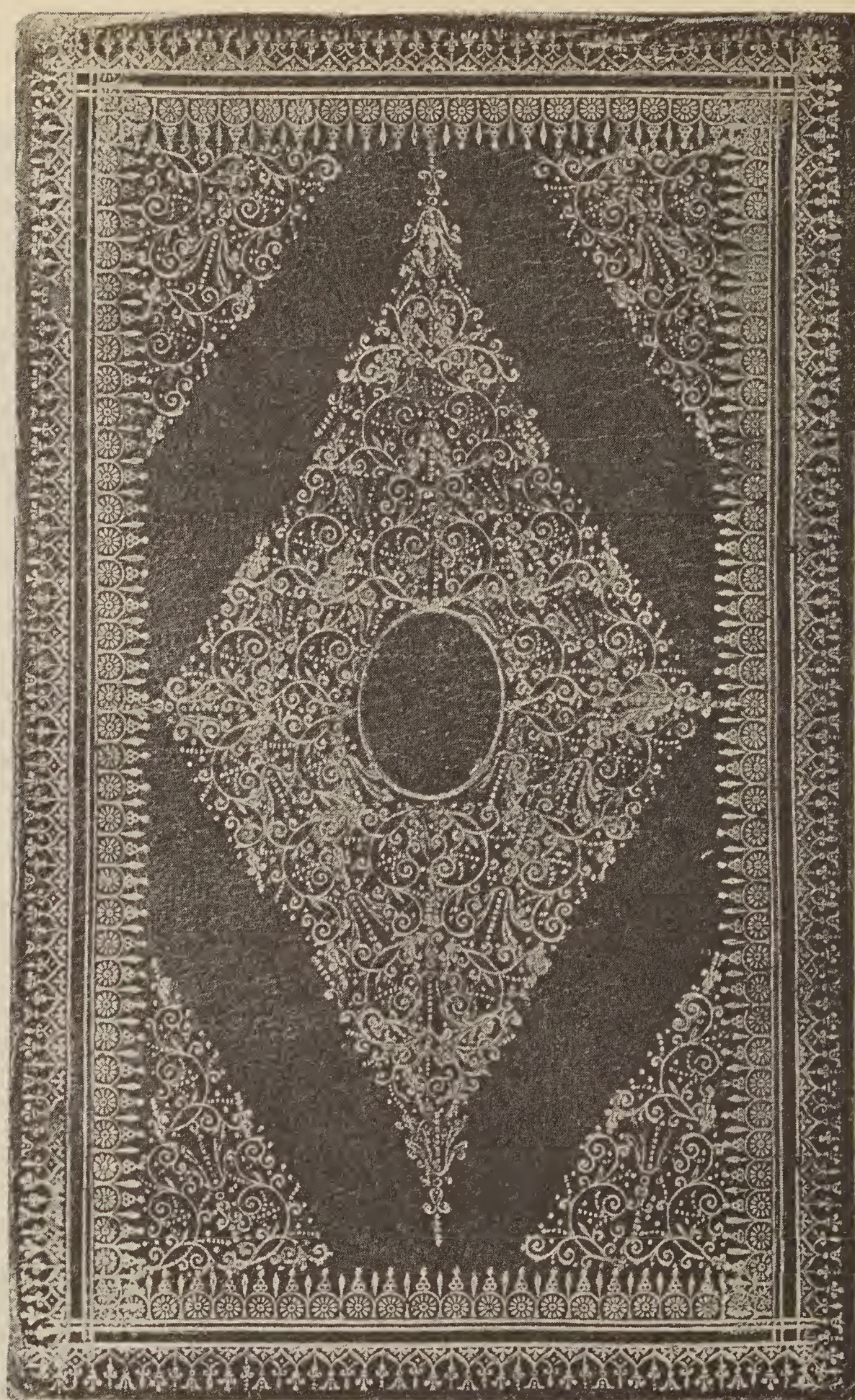


PLATE 40. "*Le Gascon*" Binding.



PLATE 41. *"Le Gascon" Binding.*



PLATE 42. *Padeloup Binding.*

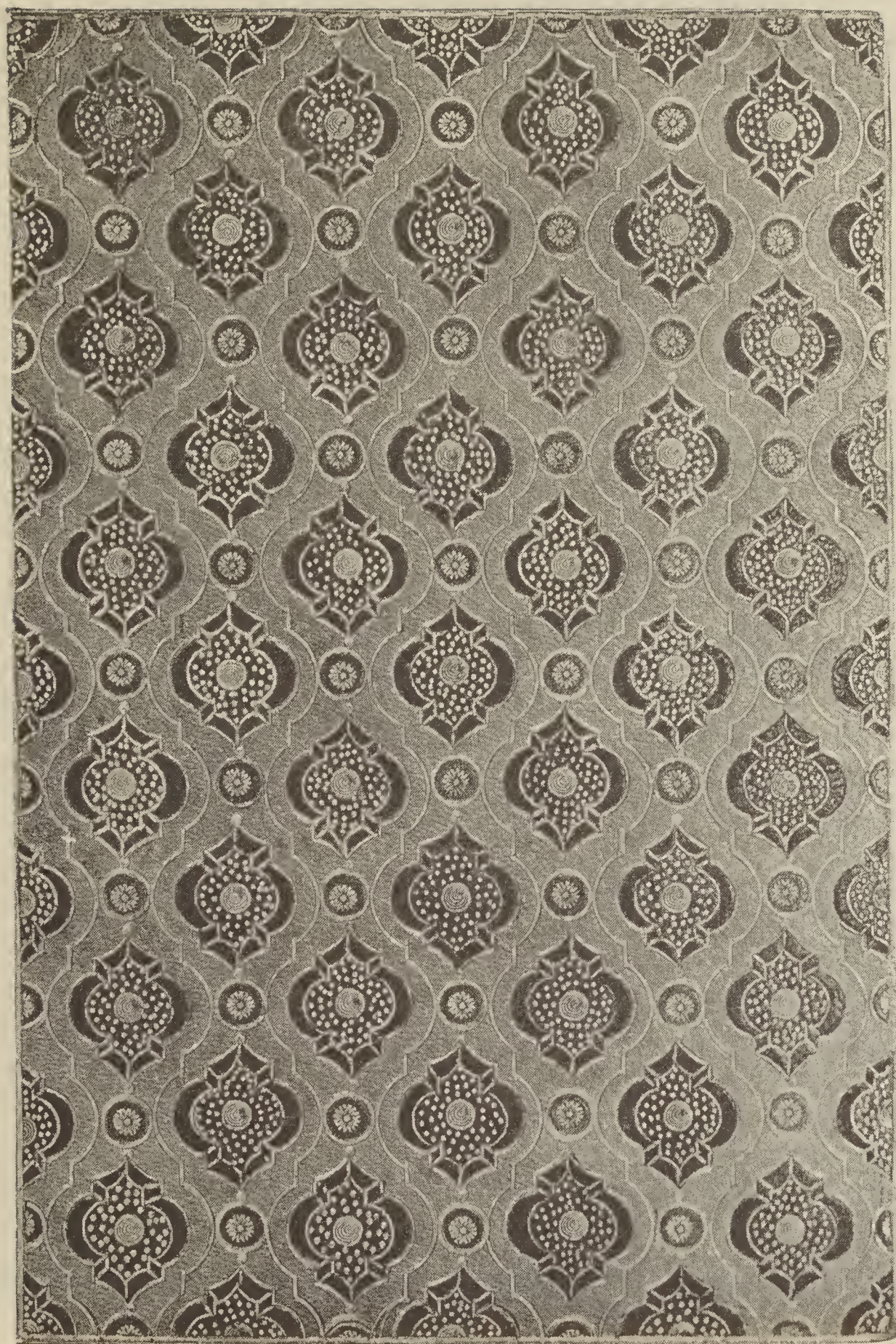


PLATE 43. *Padeloup Binding.*

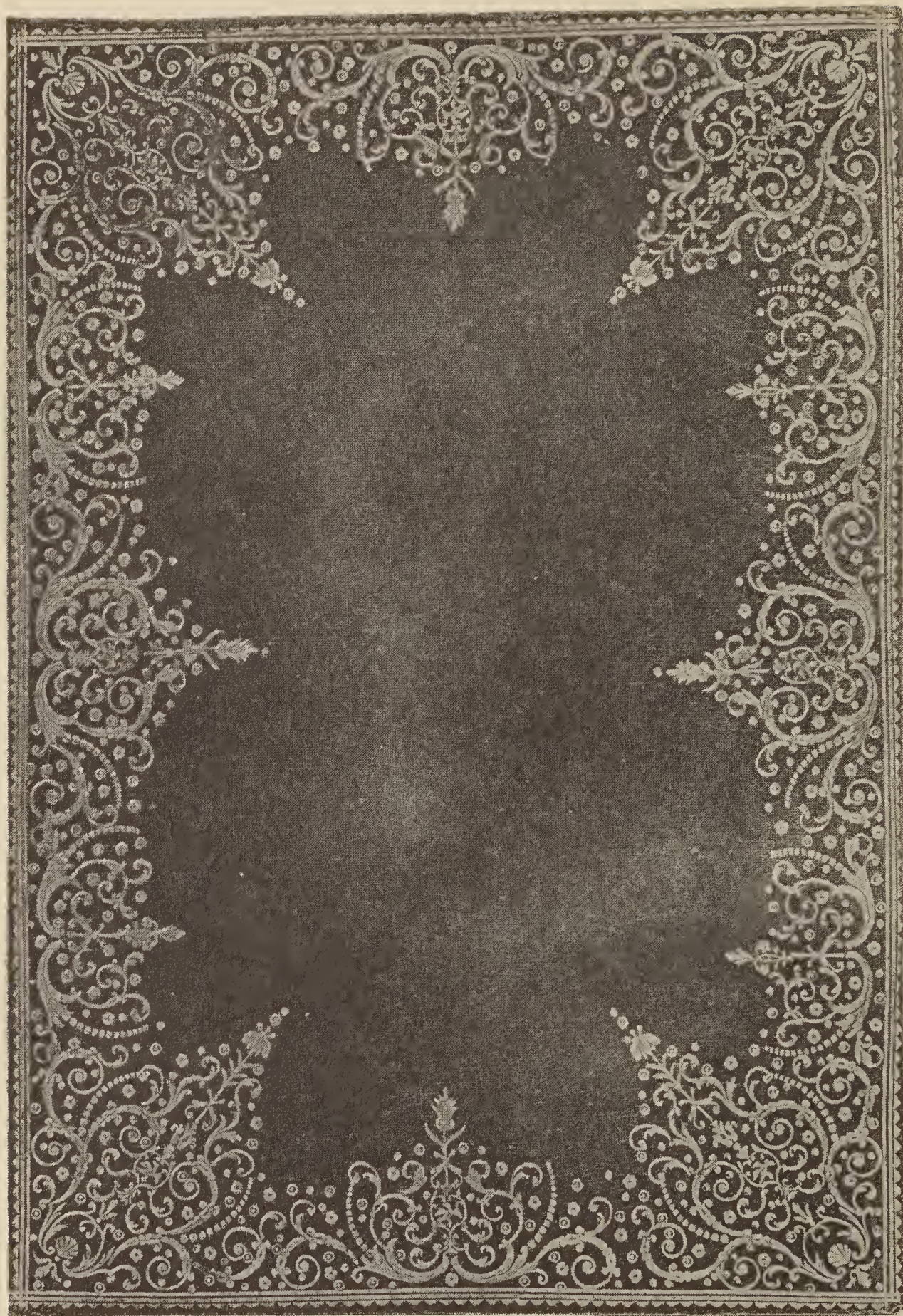


PLATE 44. *Binding by Derome le jeune.*

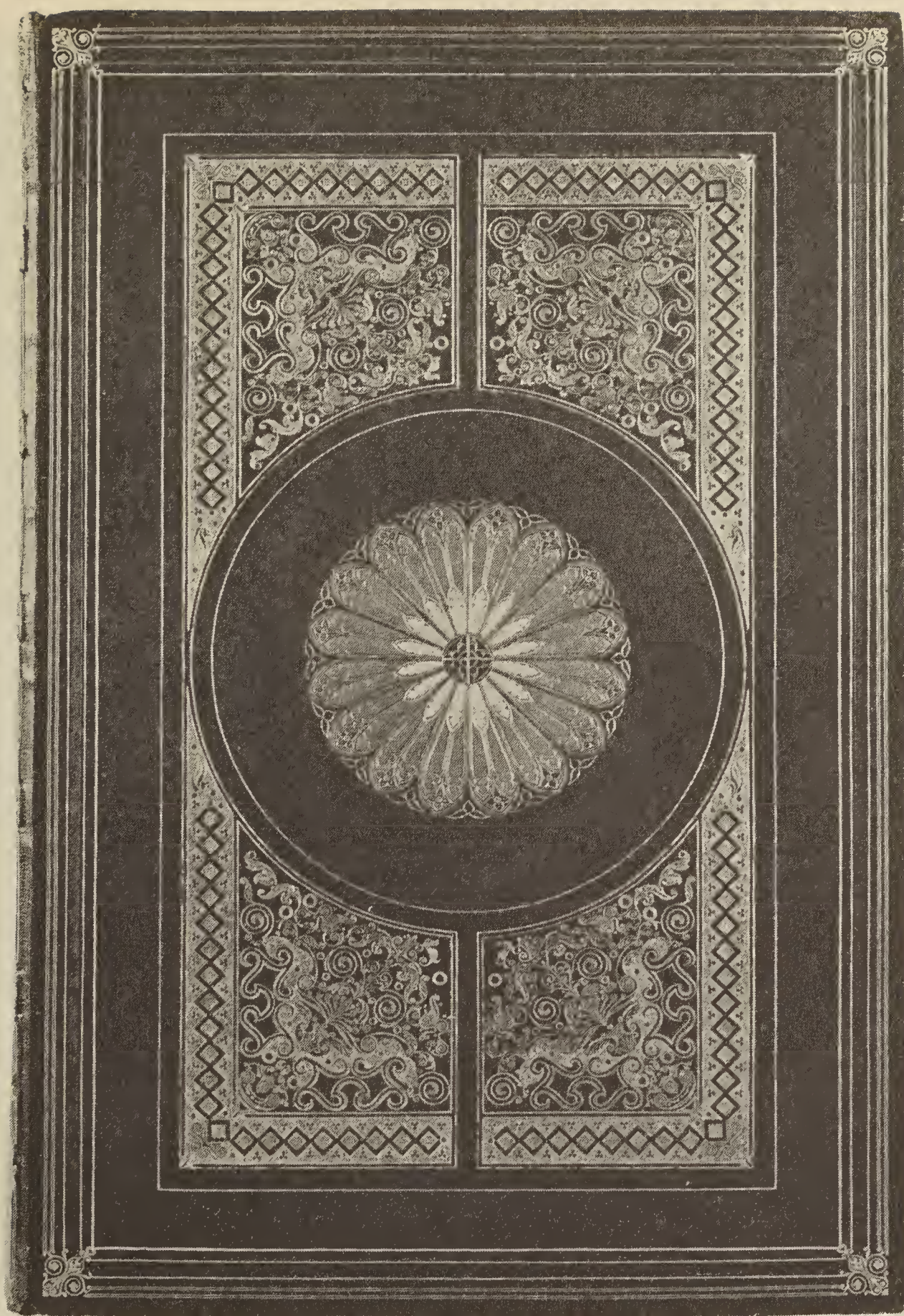


PLATE 45. *Binding by Thouvenin.*

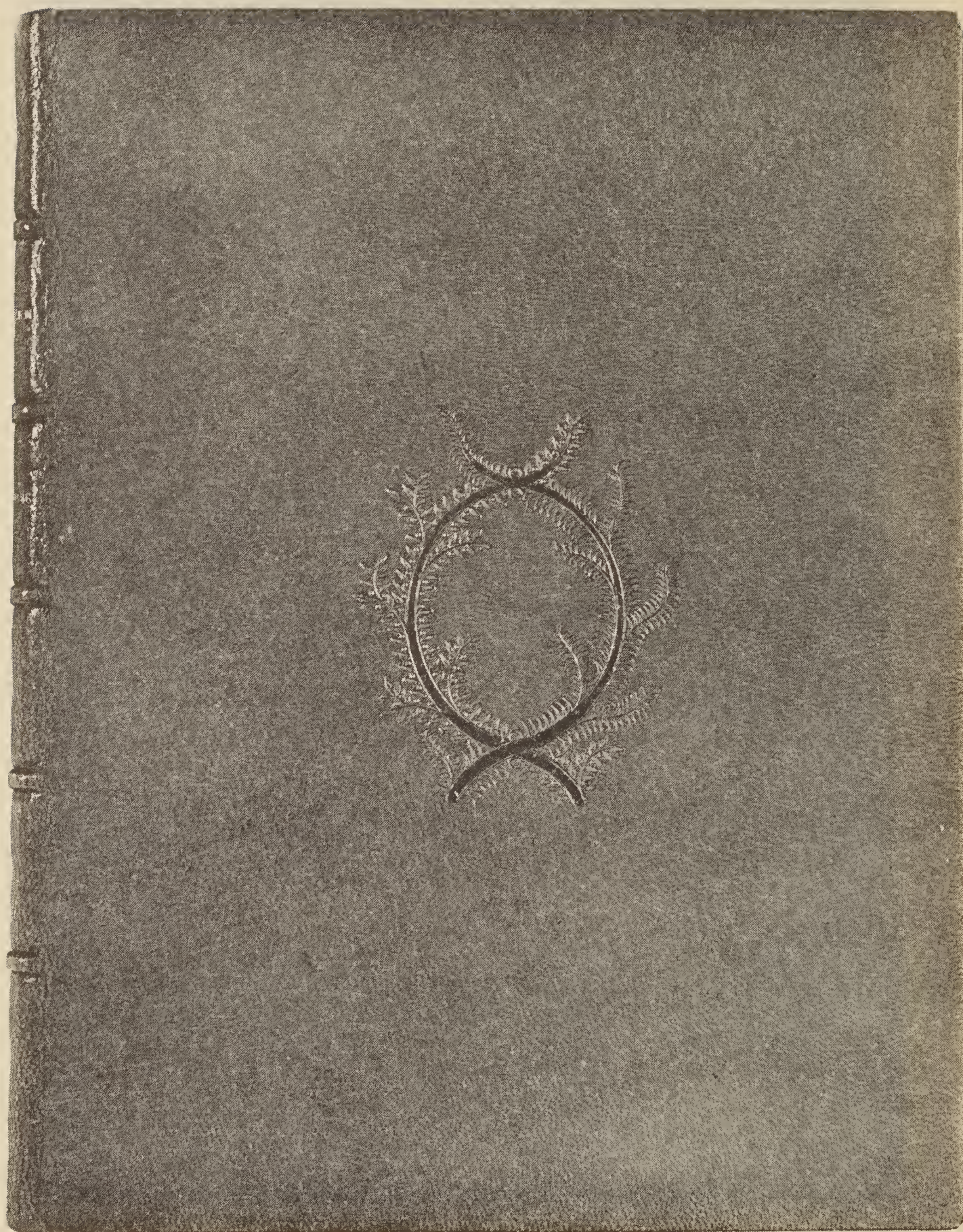


PLATE 46. *Binding by Trautz-Bauzonnet.*

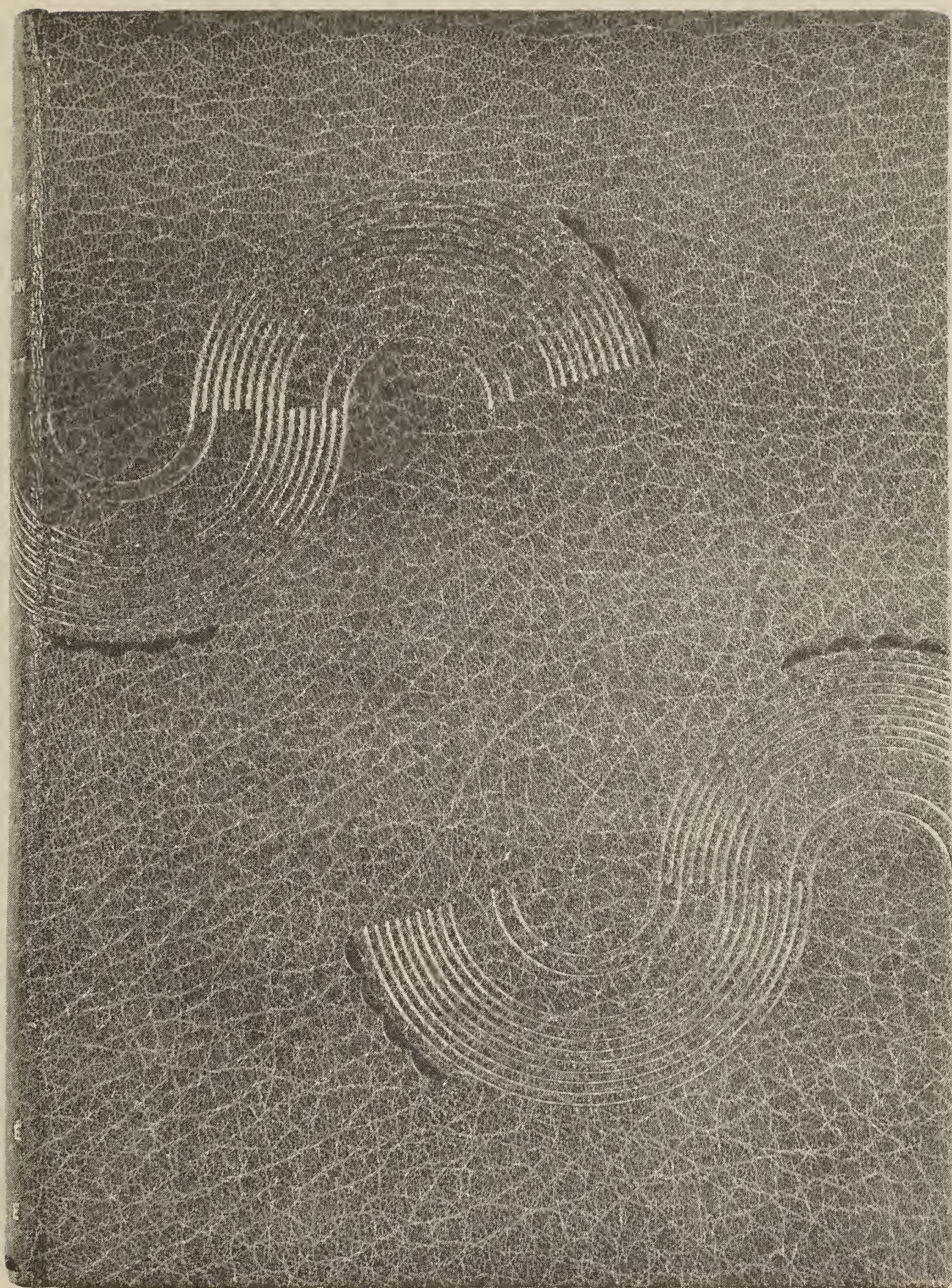


PLATE 47. *Binding by Pierre Legrain.*

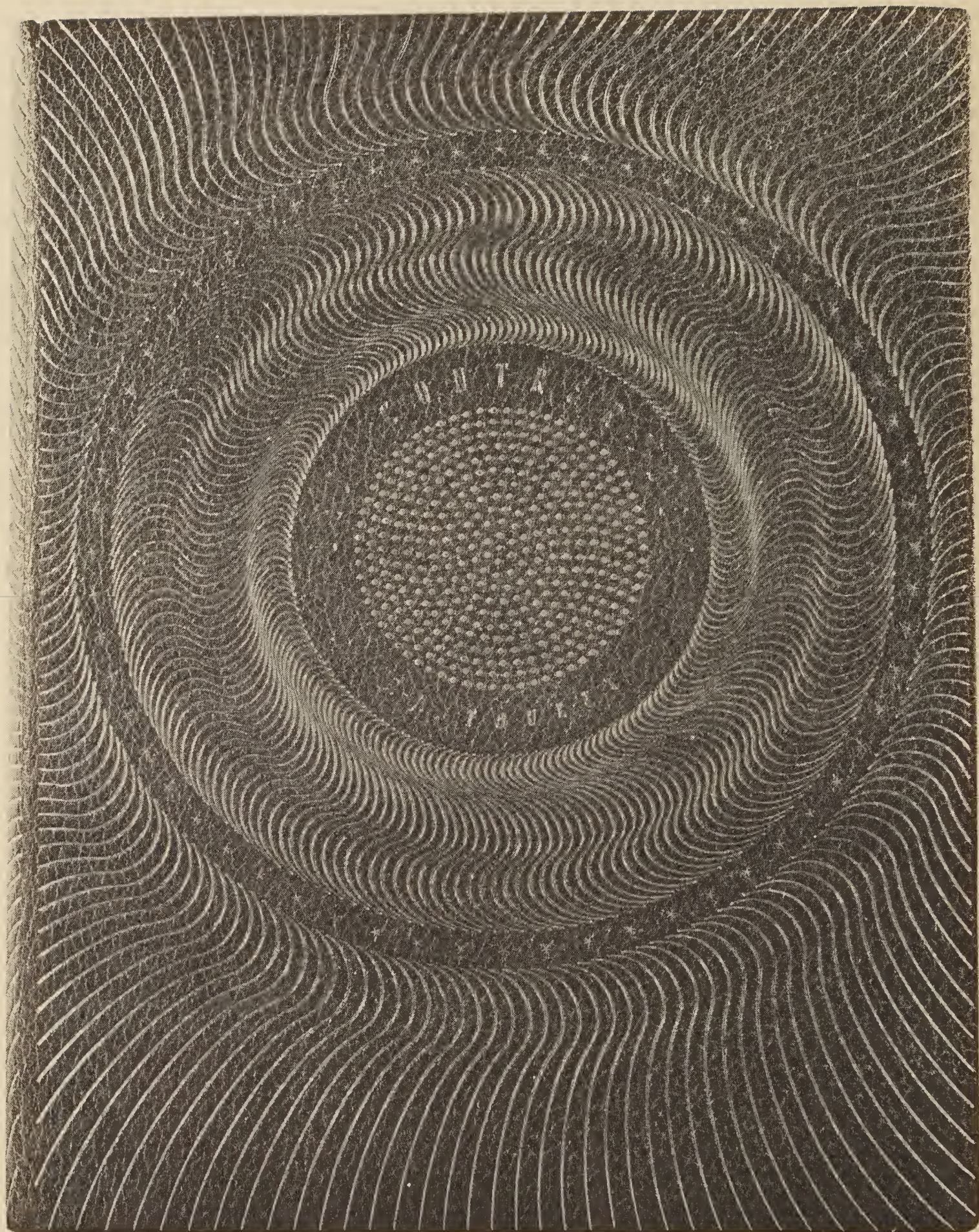


PLATE 48. *Binding by Paul Bonet.*

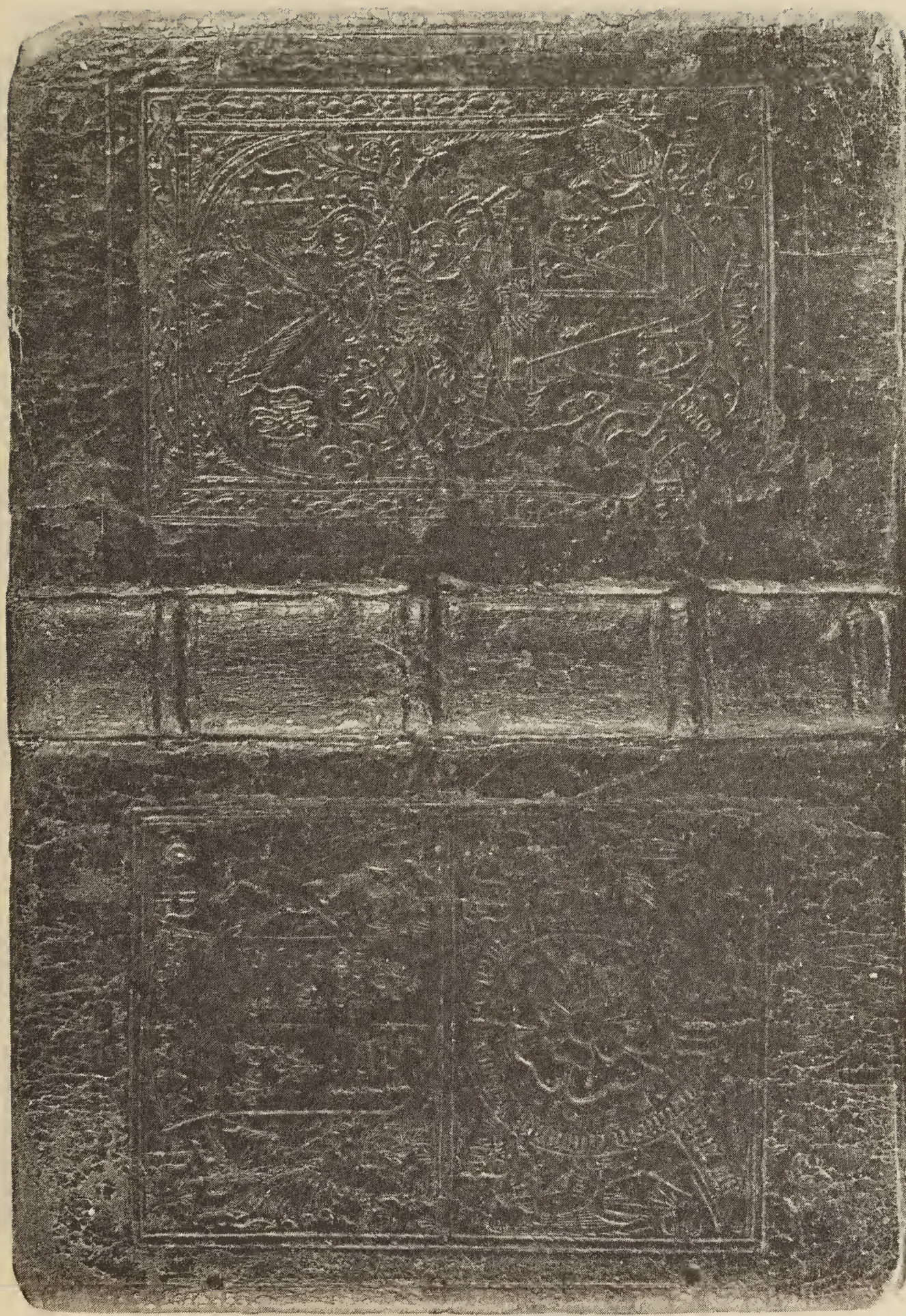


PLATE 49. Binding by John Reynes.



PLATE 50. *Binding Executed for Robert Dudley, Earl of Leicester.*



PLATE 51. XVII Century English Embroidered Binding.



PLATE 52. XVII Century English Embroidered Binding.

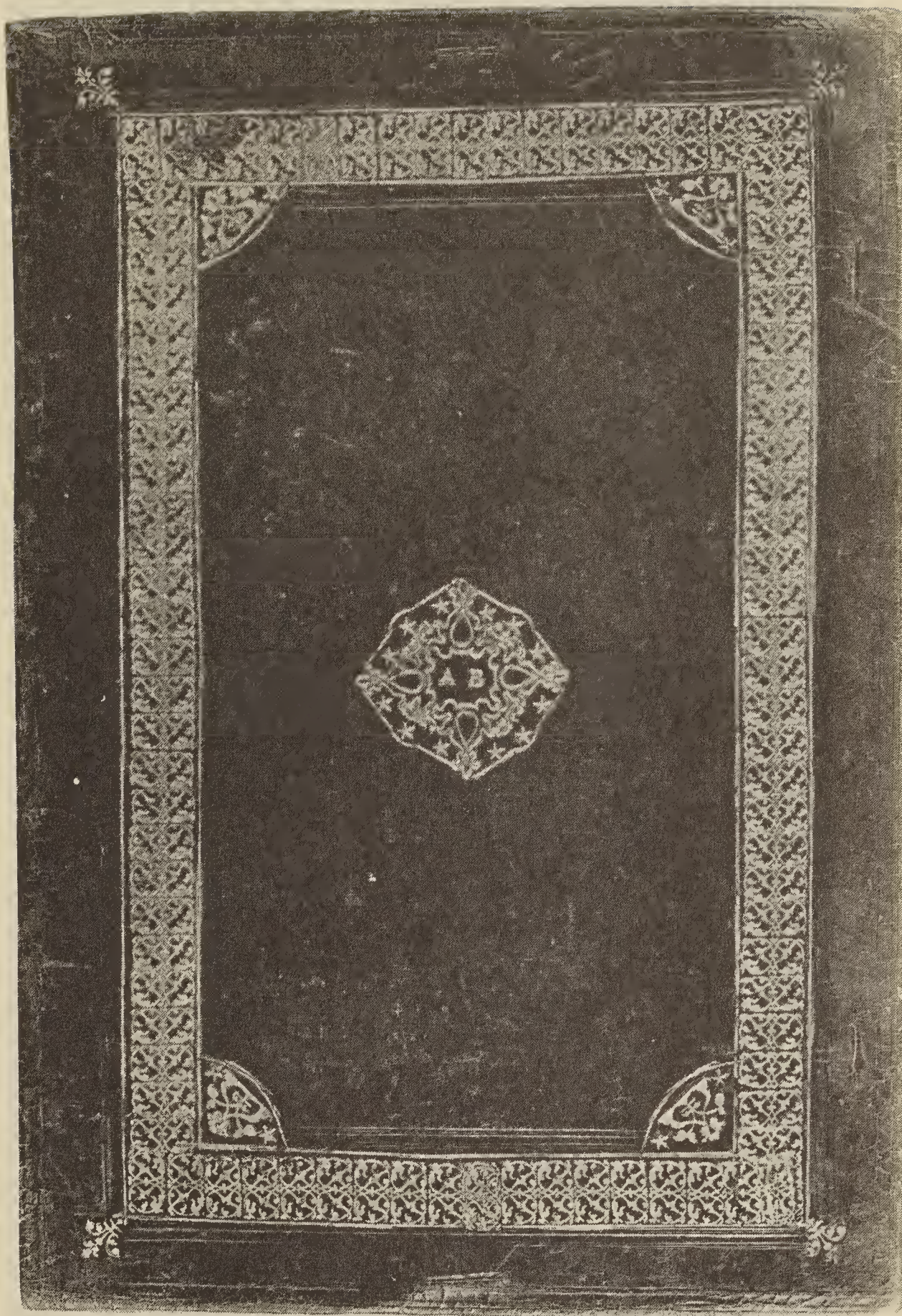


PLATE 53. *Binding Attributed to Thomas Berthelet.*

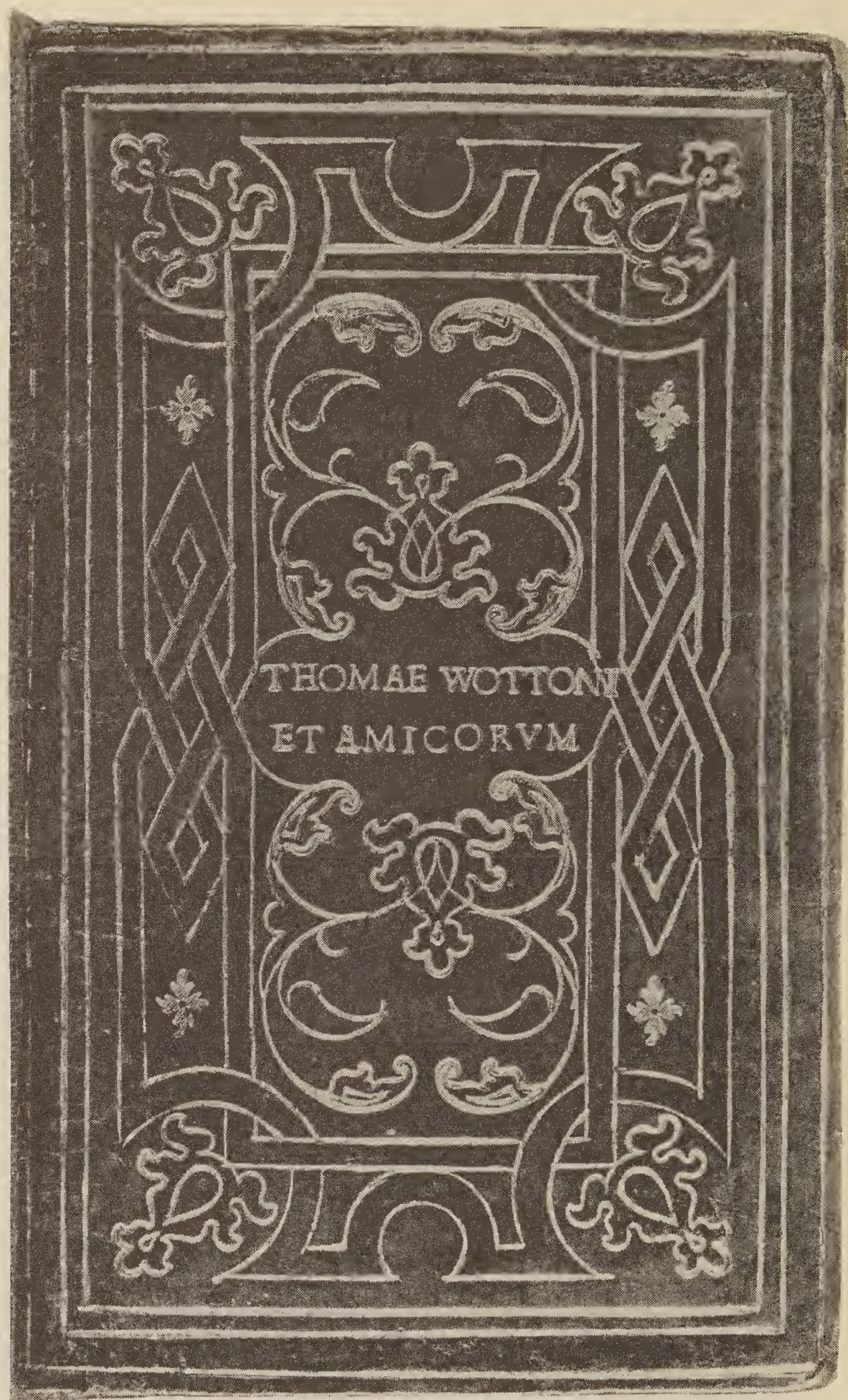


PLATE 54. *Thomas Wotton Binding.*



PLATE 55. *Binding Executed for Mary II, Queen of England.*

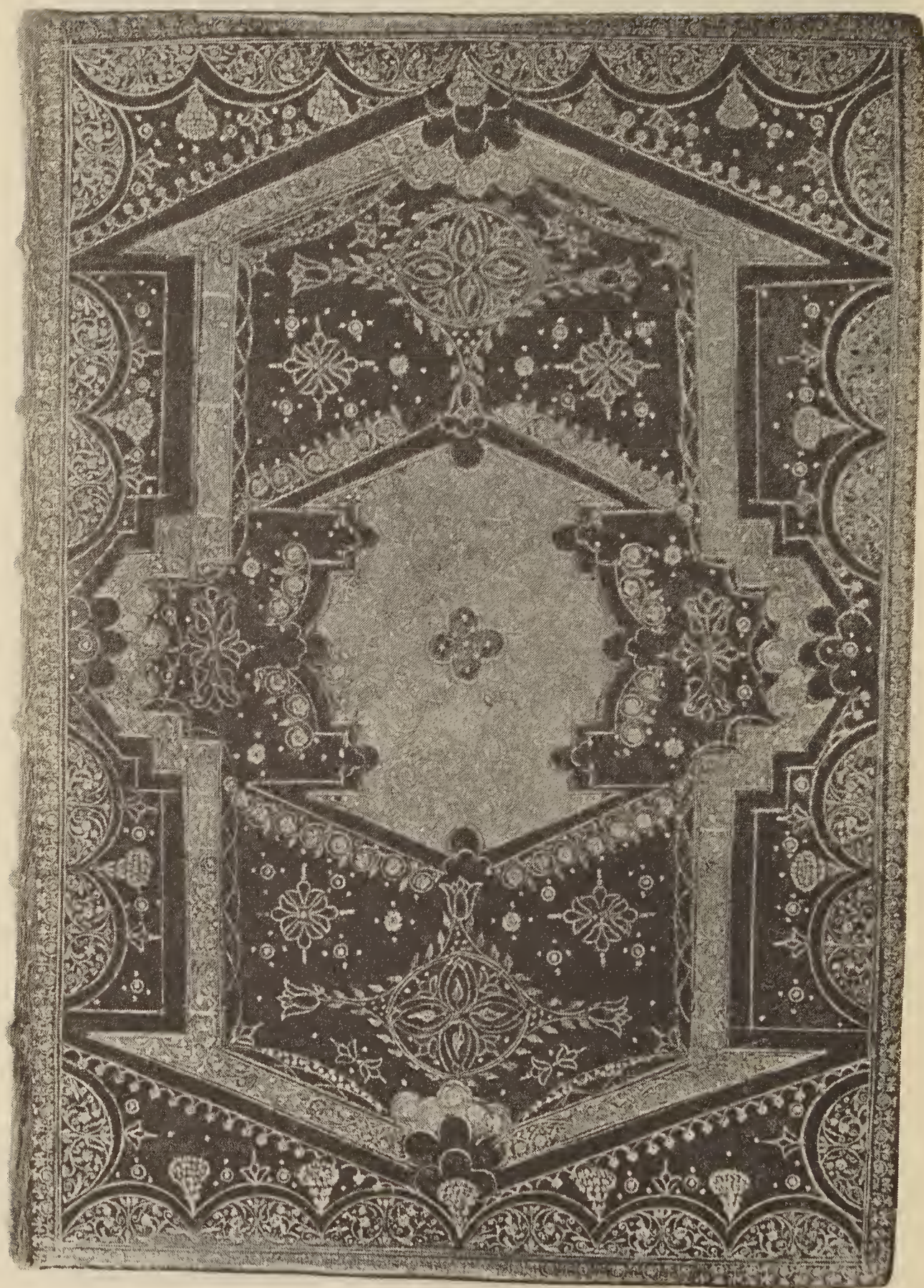


PLATE 56. *"Mearne Binding" in Cottage Style.*



PLATE 57. *Binding by the "Mearne Binder."*

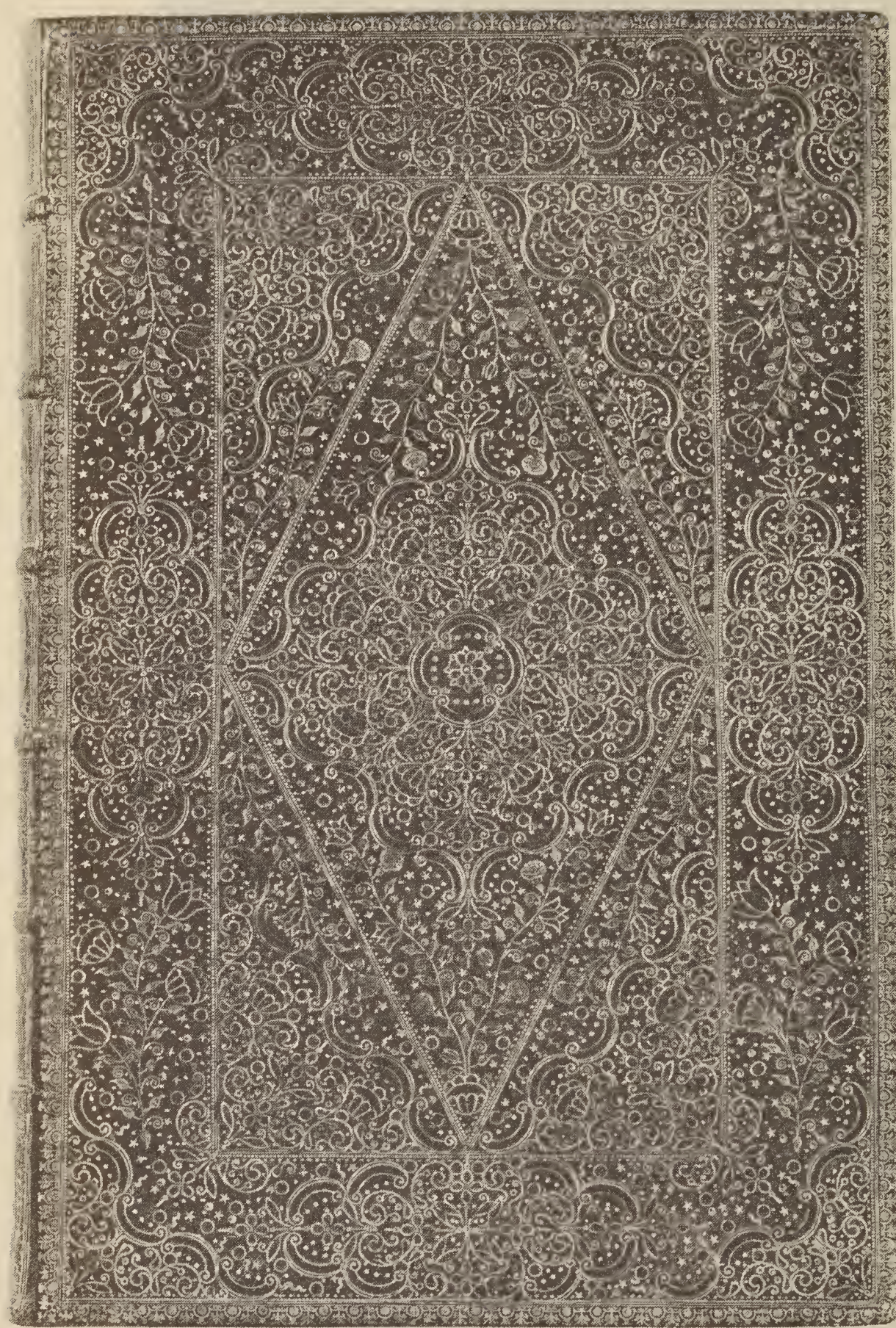
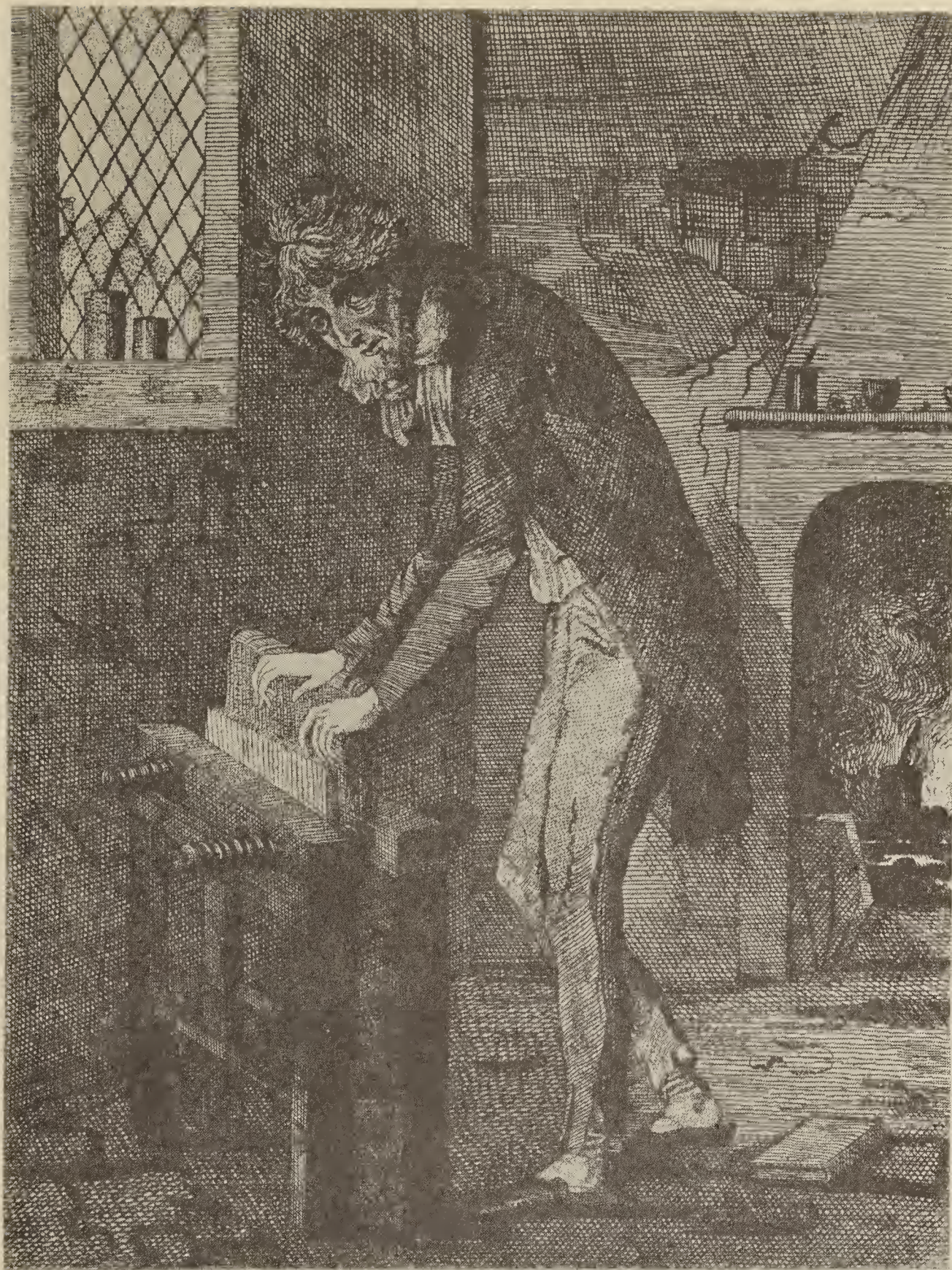


PLATE 58. "Mearne Binding" with Gauffered Edge.



ROGERUS PAYNE.

Natus Vindebor MDCLXXXIX. denatus Londin MDCC LXXXVII

Effigiem hunc graphicam solertis BIBLIOPEGI Mynstere meritis BIBLIOPOLA dedit

Probat. & publicat. b. J. S. Harding Viro. Pict. Vult. Marchi, 1900.

Ang. Libr. Thos. Pay.

PLATE 59. Etching of Roger Payne.

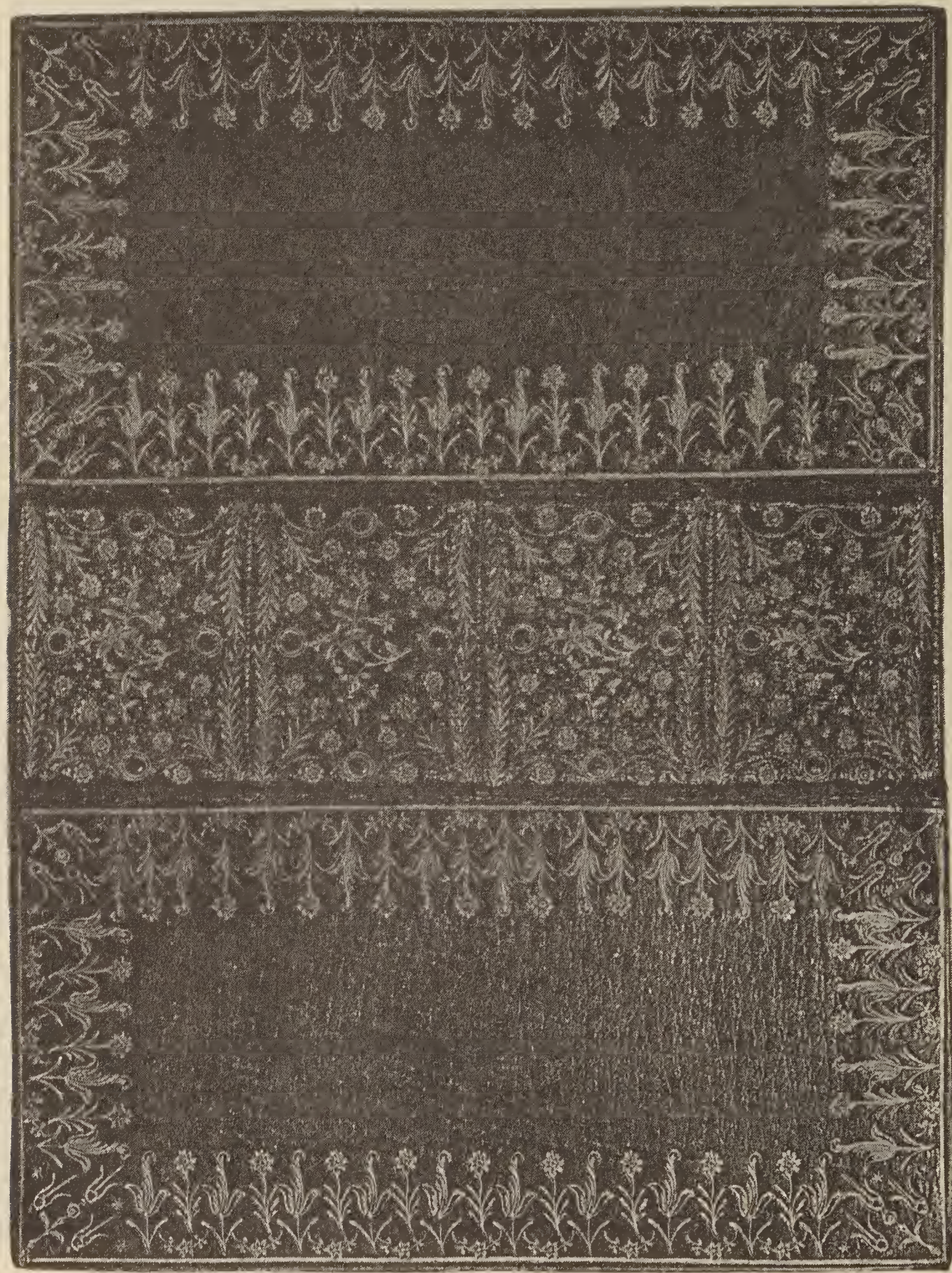


PLATE 60. Binding by Roger Payne

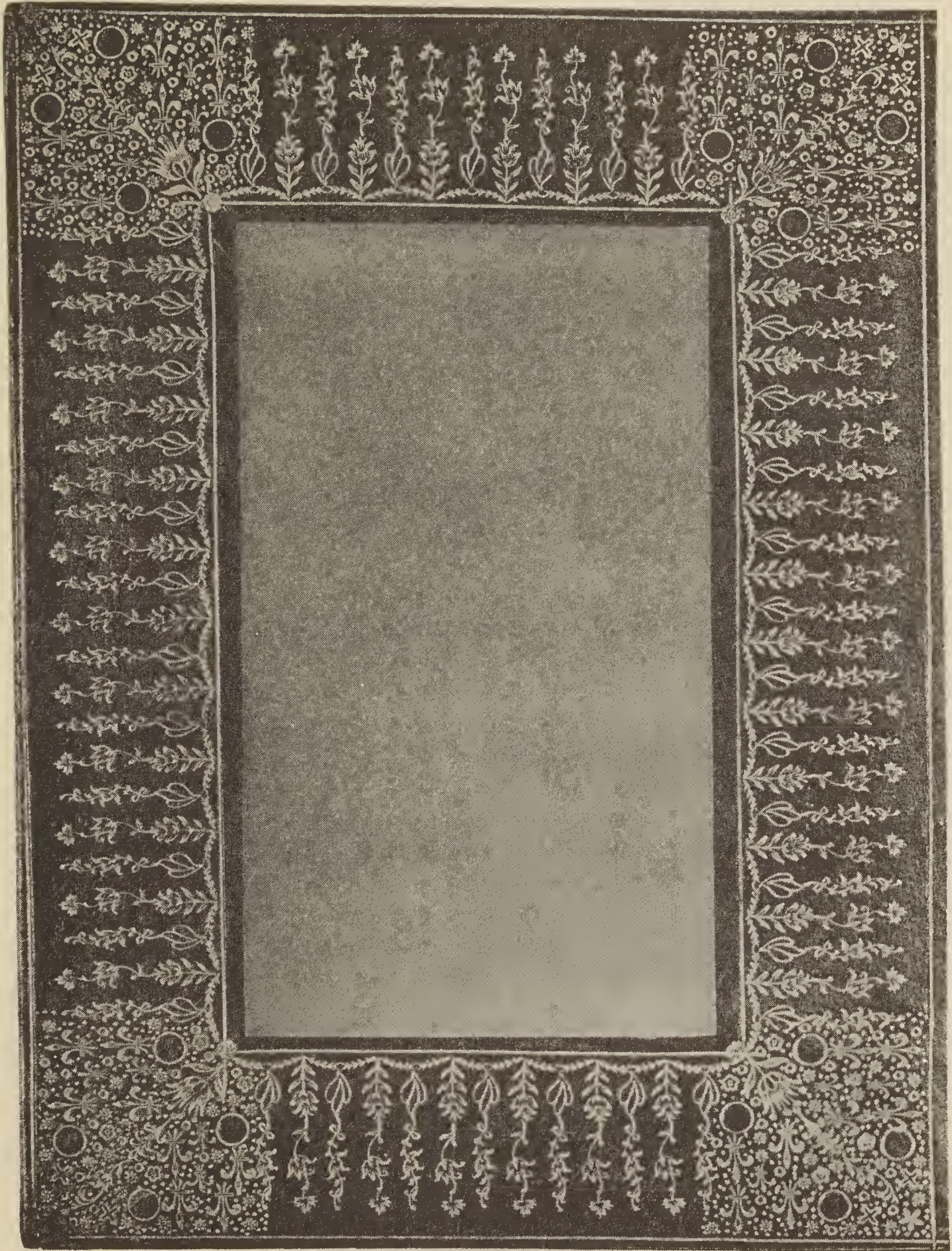


PLATE 61. *Doublure by Roger Payne.*

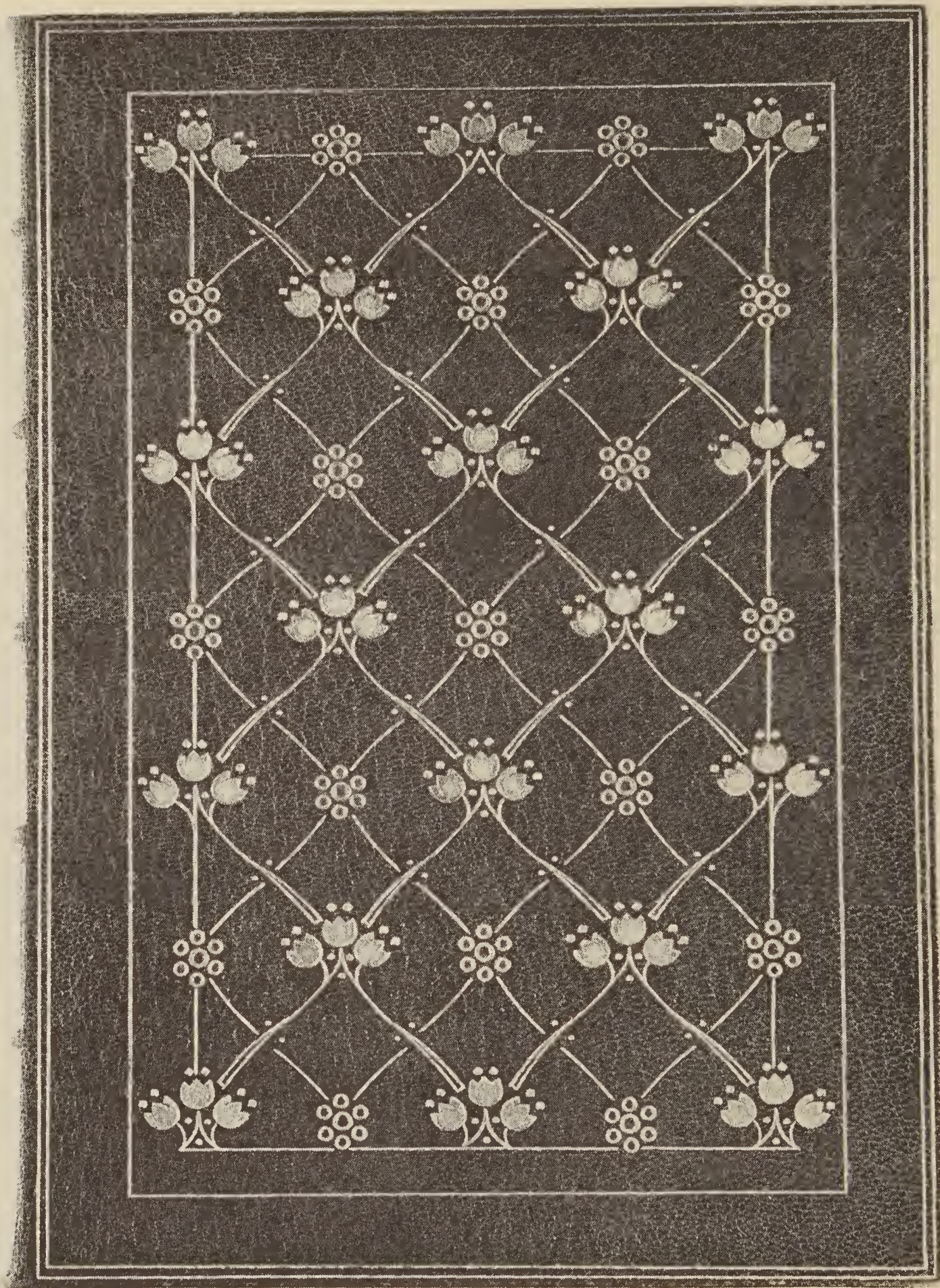


PLATE 62. *Binding by Cobden-Sanderson.*

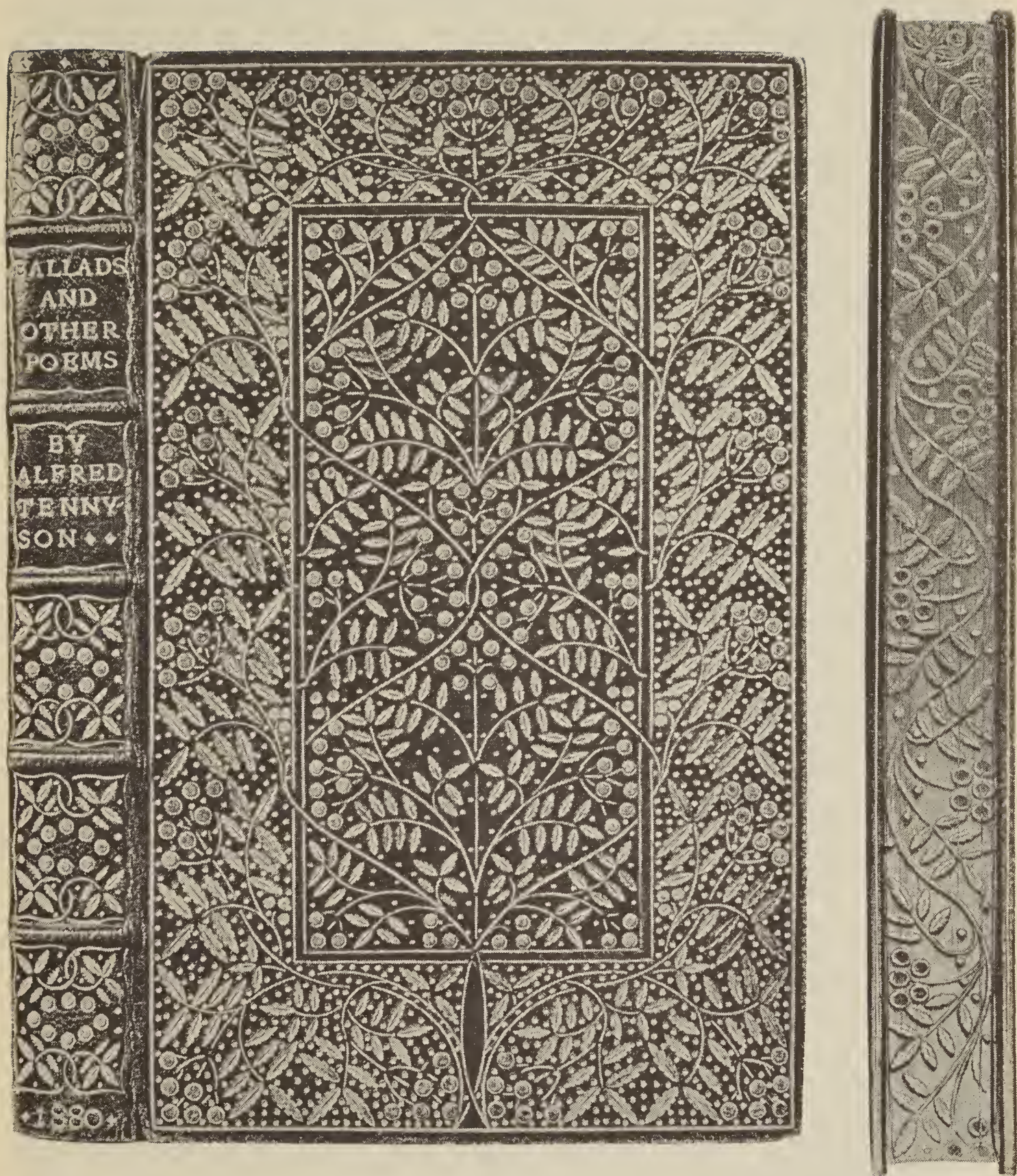


PLATE 63. *Binding and Decorated Fore-edge by Douglas Cockerell.*

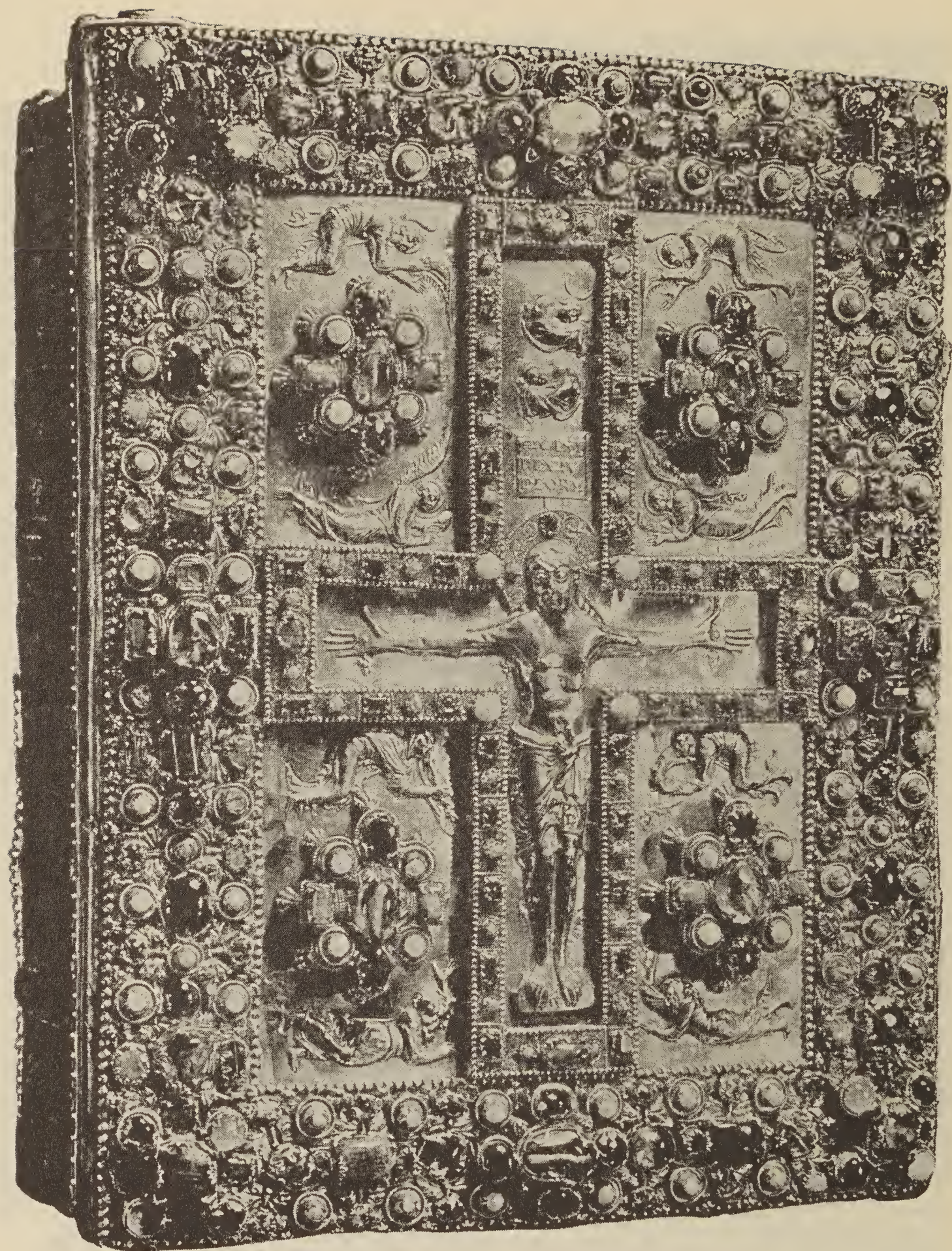


PLATE 64. *Upper Cover of the "Lindau Gospel," IX Century.*



PLATE 65. Lower Cover of the "Lindau Gospel," IX Century.

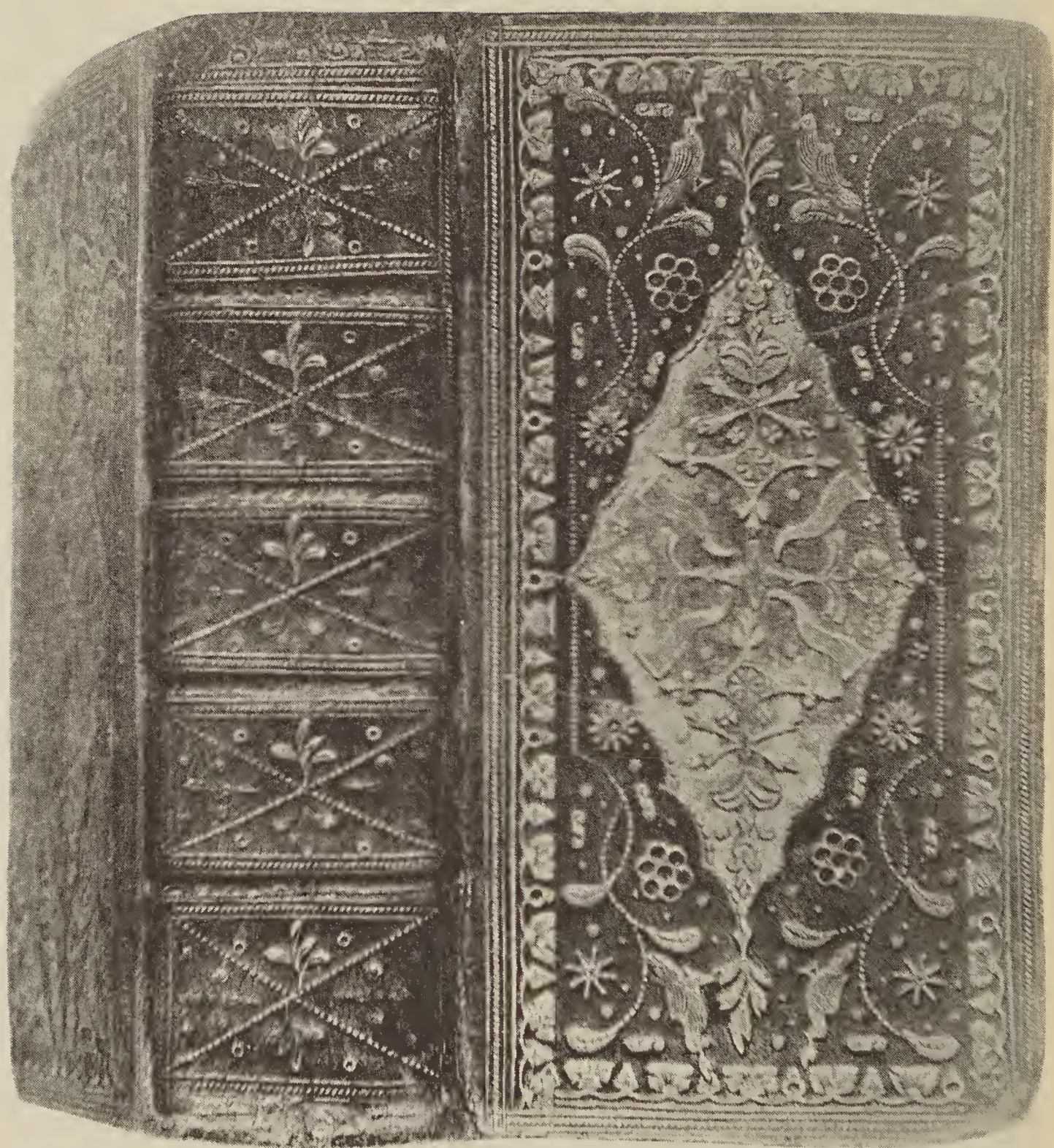


PLATE 66. XVIII Century Irish Binding.



PLATE 67. XV Century Netherlands Panel-stamped Binding.



PLATE 68. XVI Century Louvain Stamped Binding.

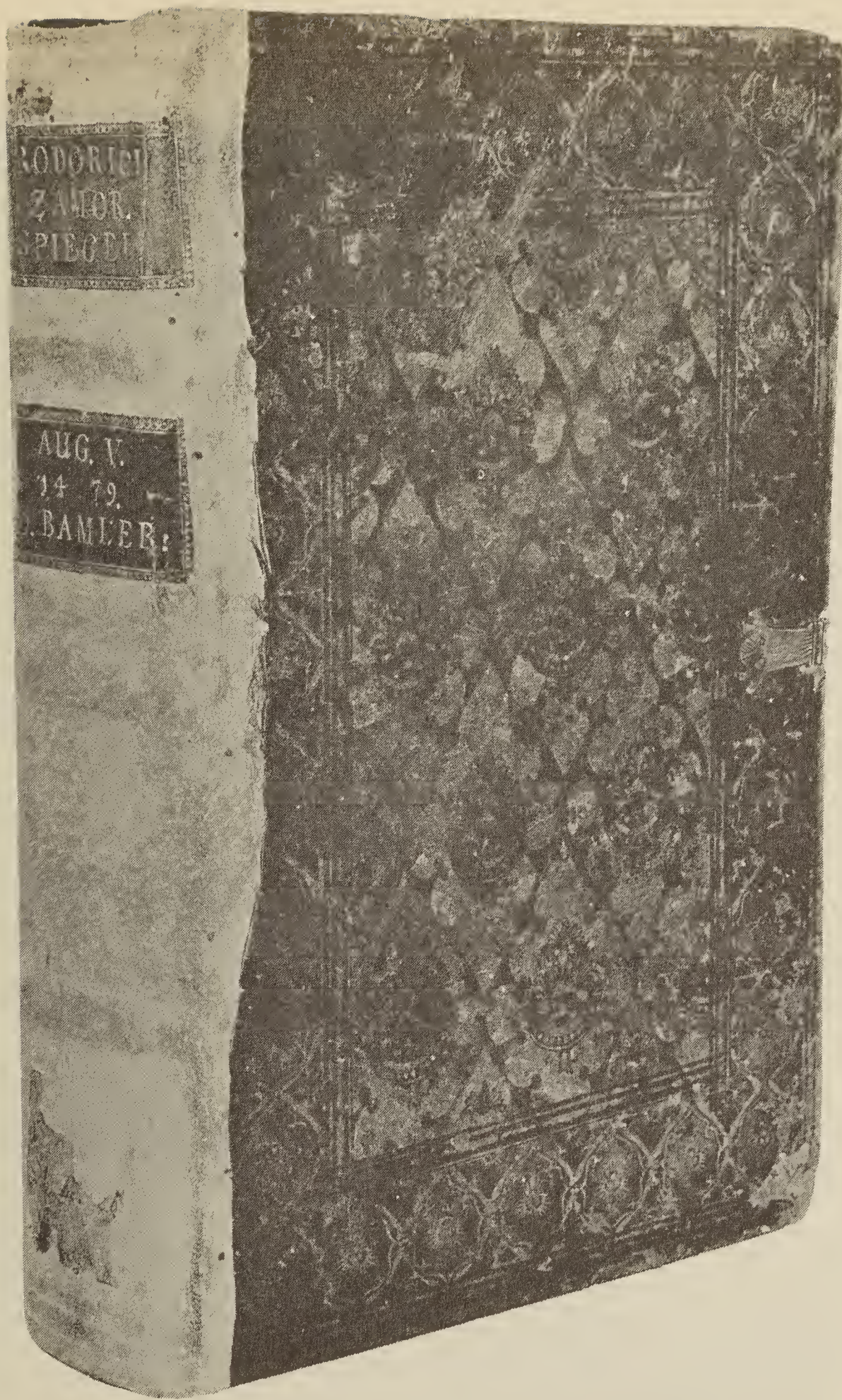


PLATE 69. XV Century German Stamped Binding.



PLATE 70. XV Century German Stamped Binding.



PLATE 71. XV Century German Binding, Front Cover.

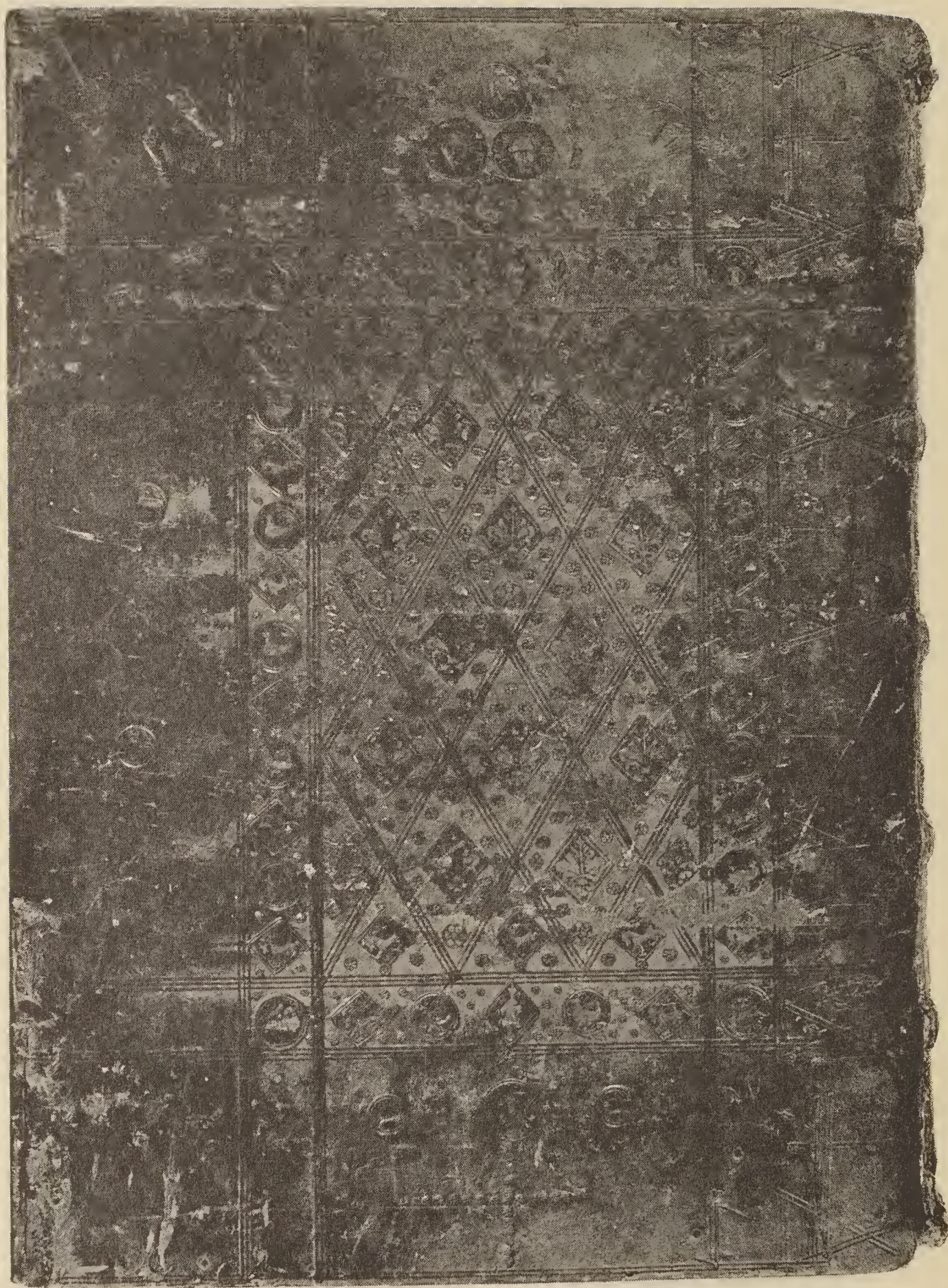


PLATE 72. *Back Cover of Binding, Plate 71.*



PLATE 73. Binding Executed by Johannes Rychenbach.

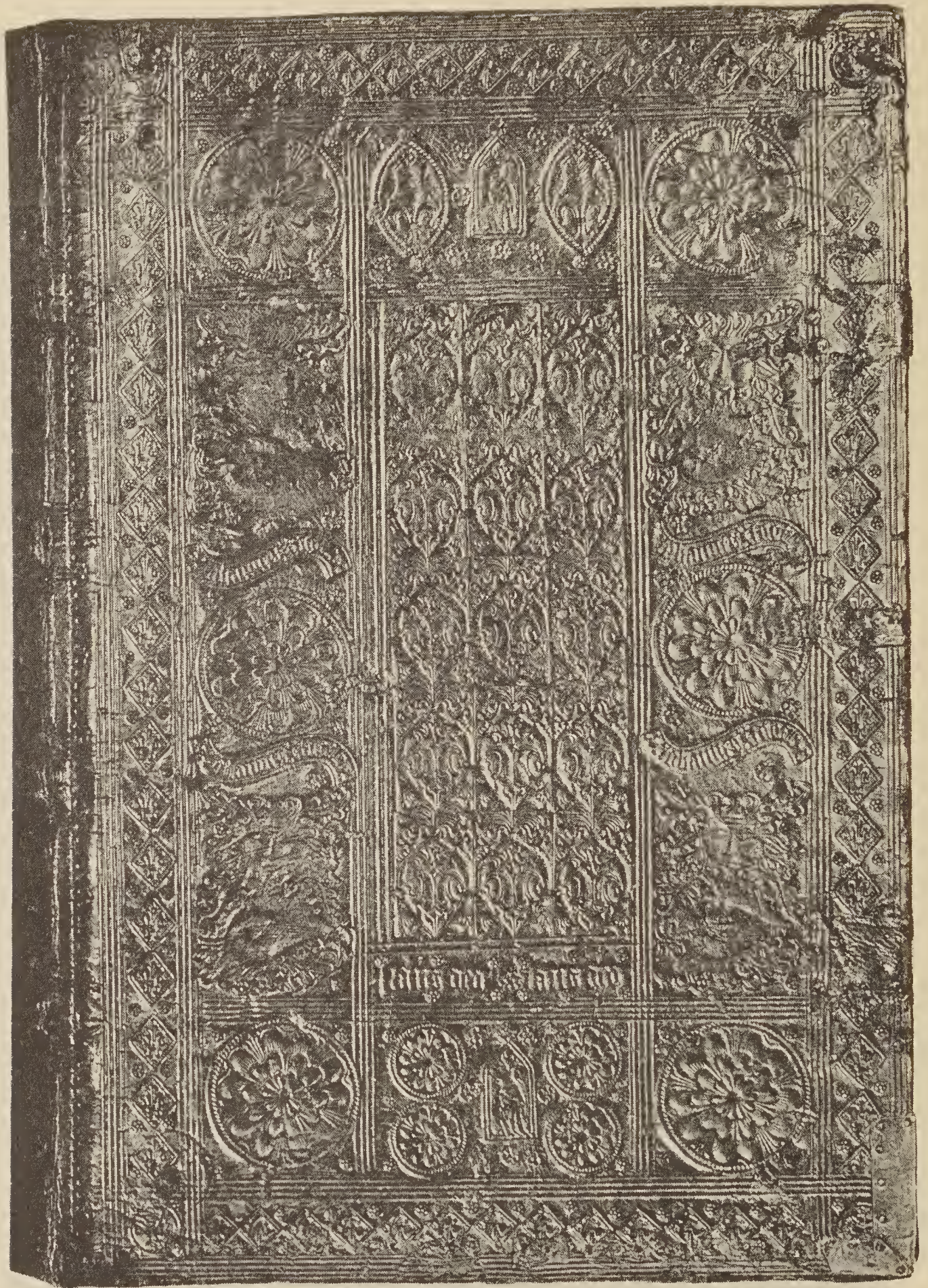


PLATE 74. *Binding Executed by Johannes Fogel.*

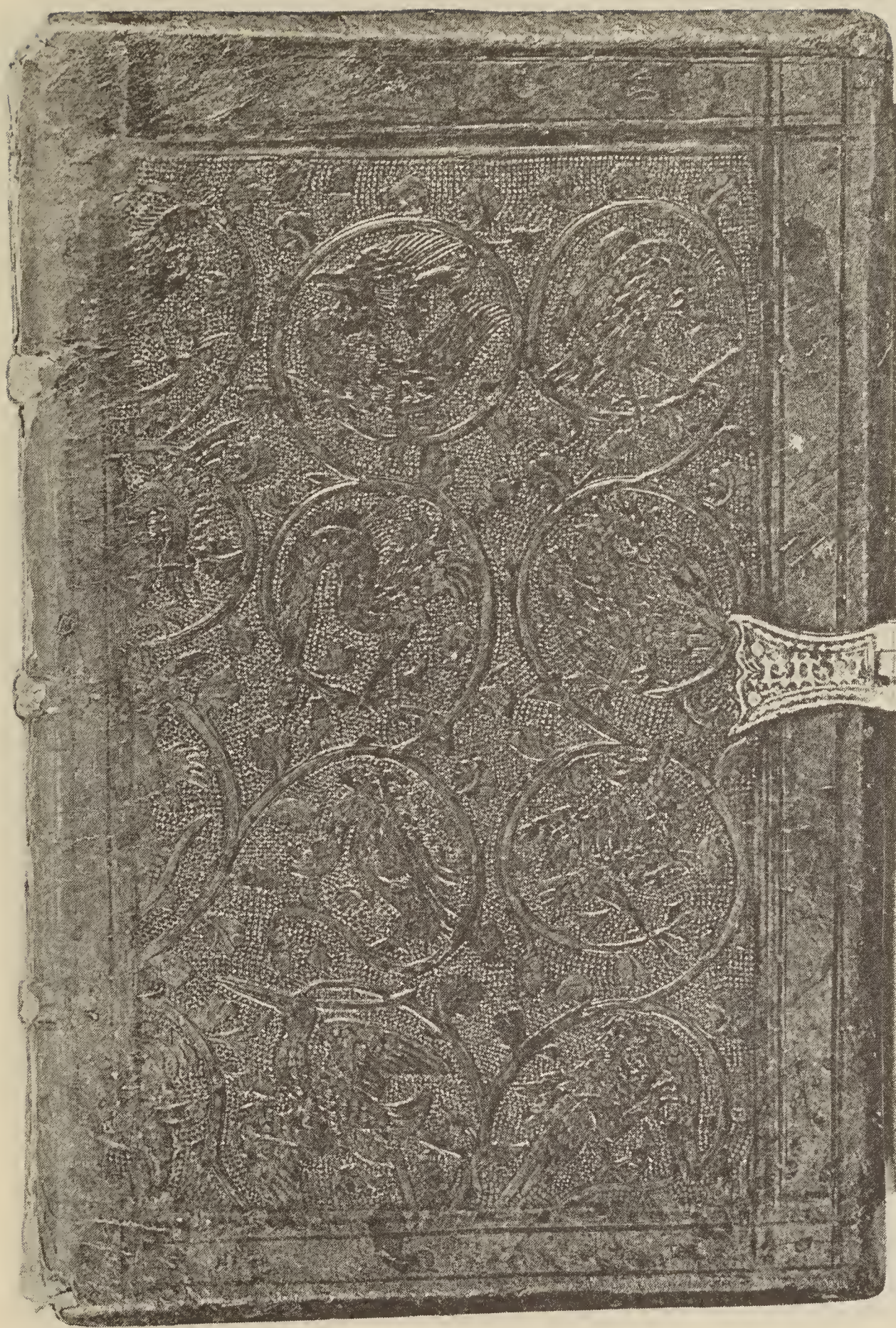


PLATE 75. *Binding Executed by Johannes Hagmayr.*



PLATE 76. XVI Century German Binding, with Hunting Scene.

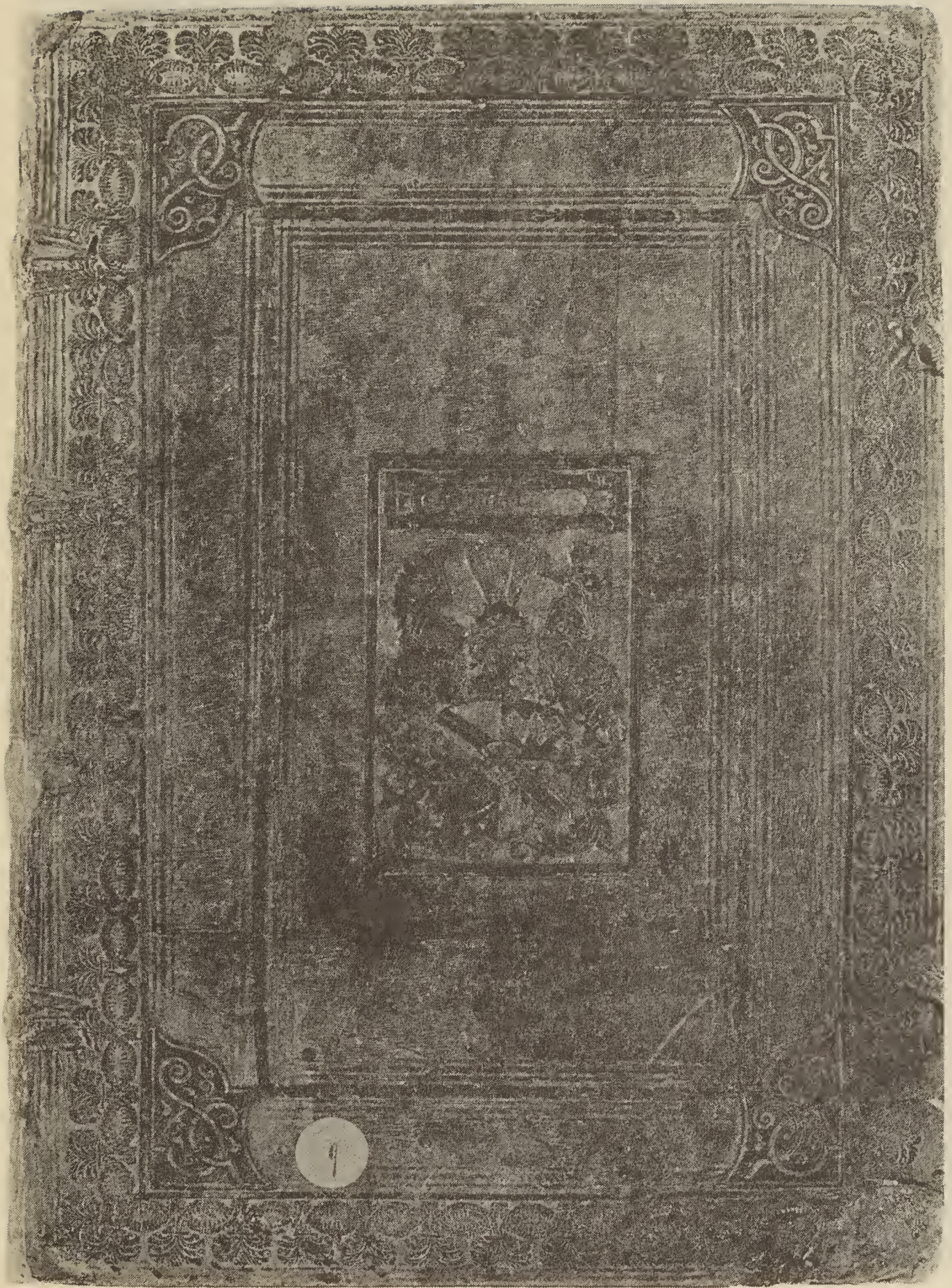


PLATE 77. XVI Century German Parchment Binding.



PLATE 78. XVI Century German Stamped Binding.

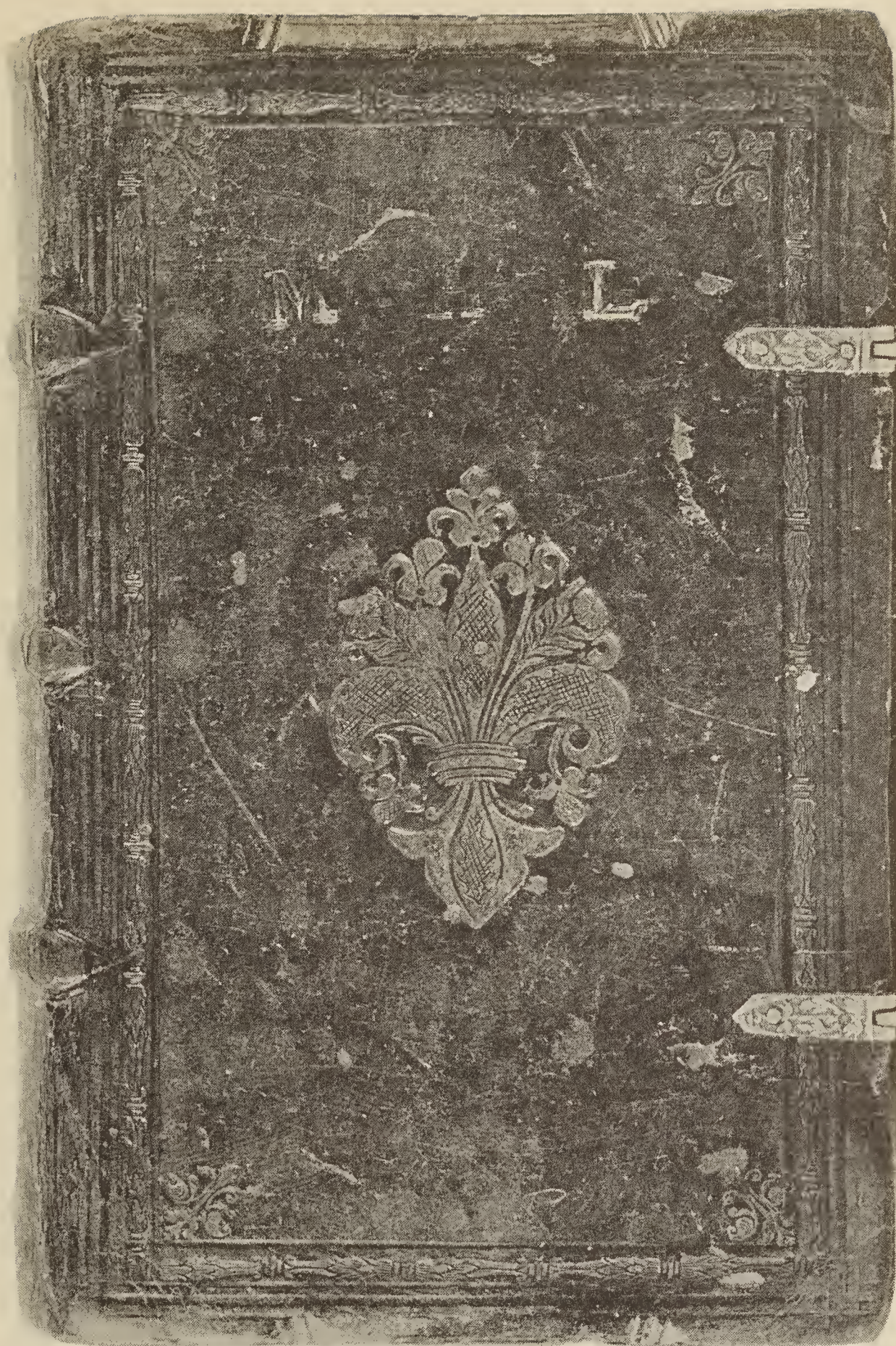


PLATE 79. XVI Century German Binding.



PLATE 80. XVII Century German Binding.

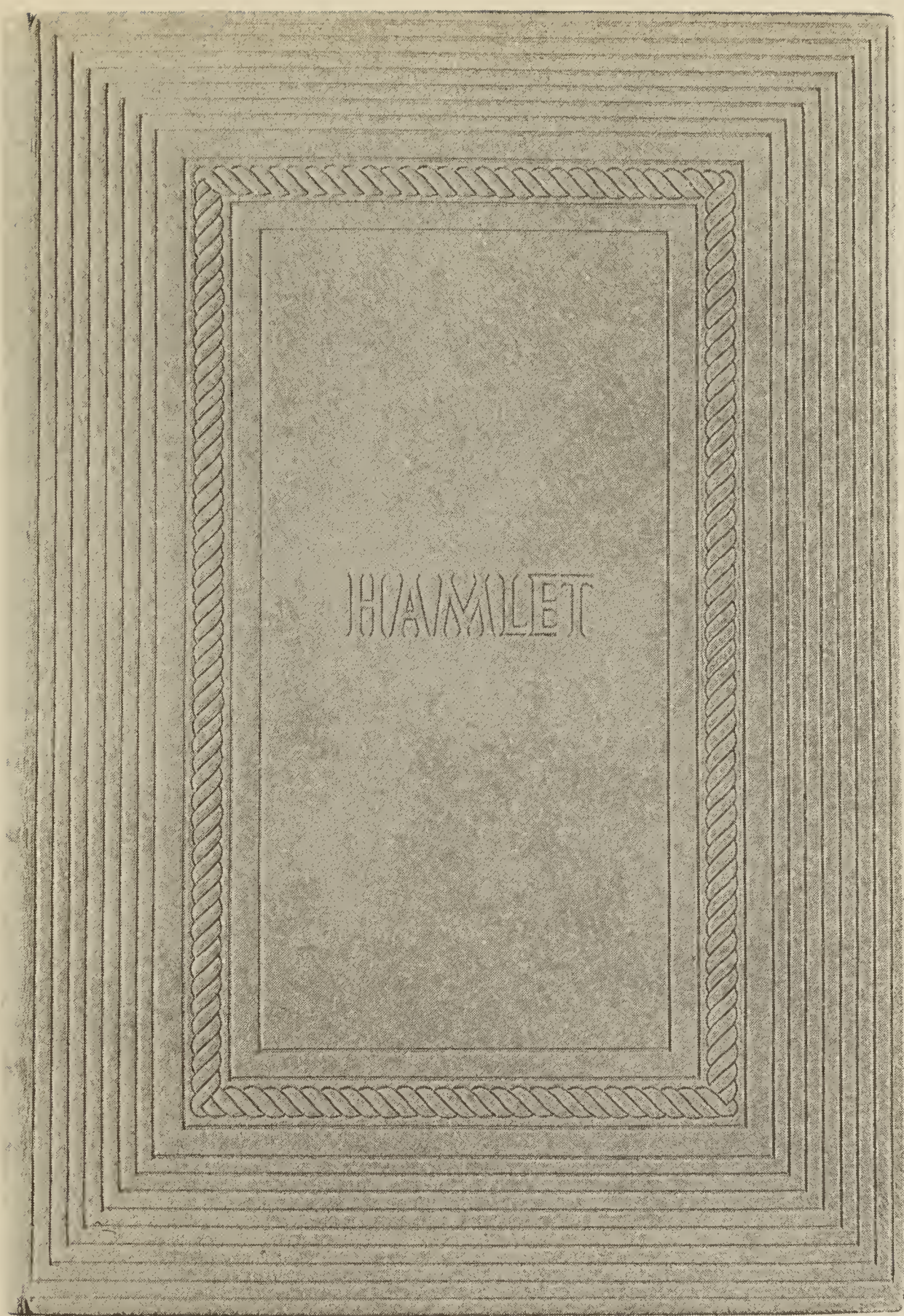


PLATE 81. *Binding by Ignatz Wiemler.*

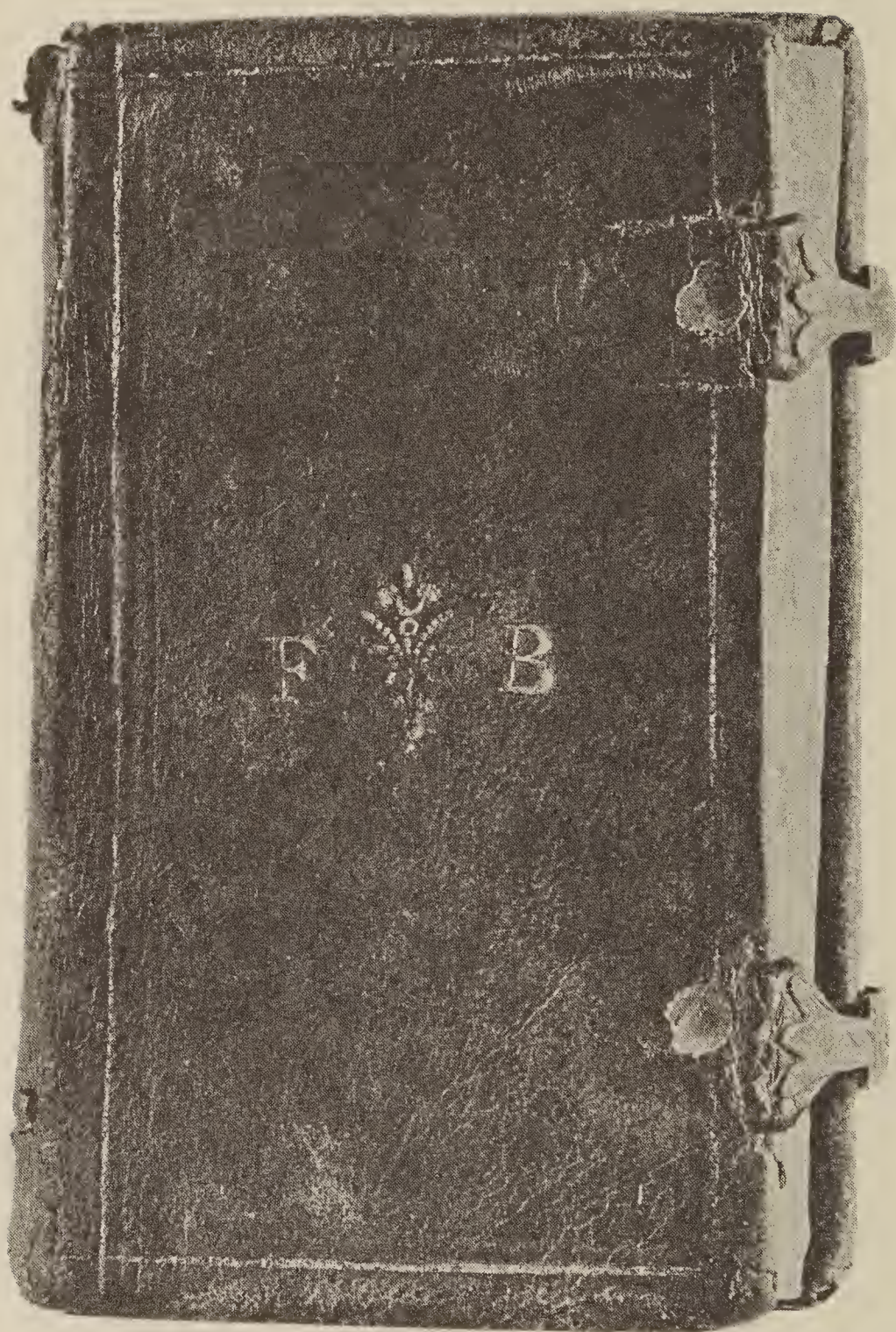


PLATE 82. *American Colonial Binding.*



PLATE 83. XVIII Century American Binding.

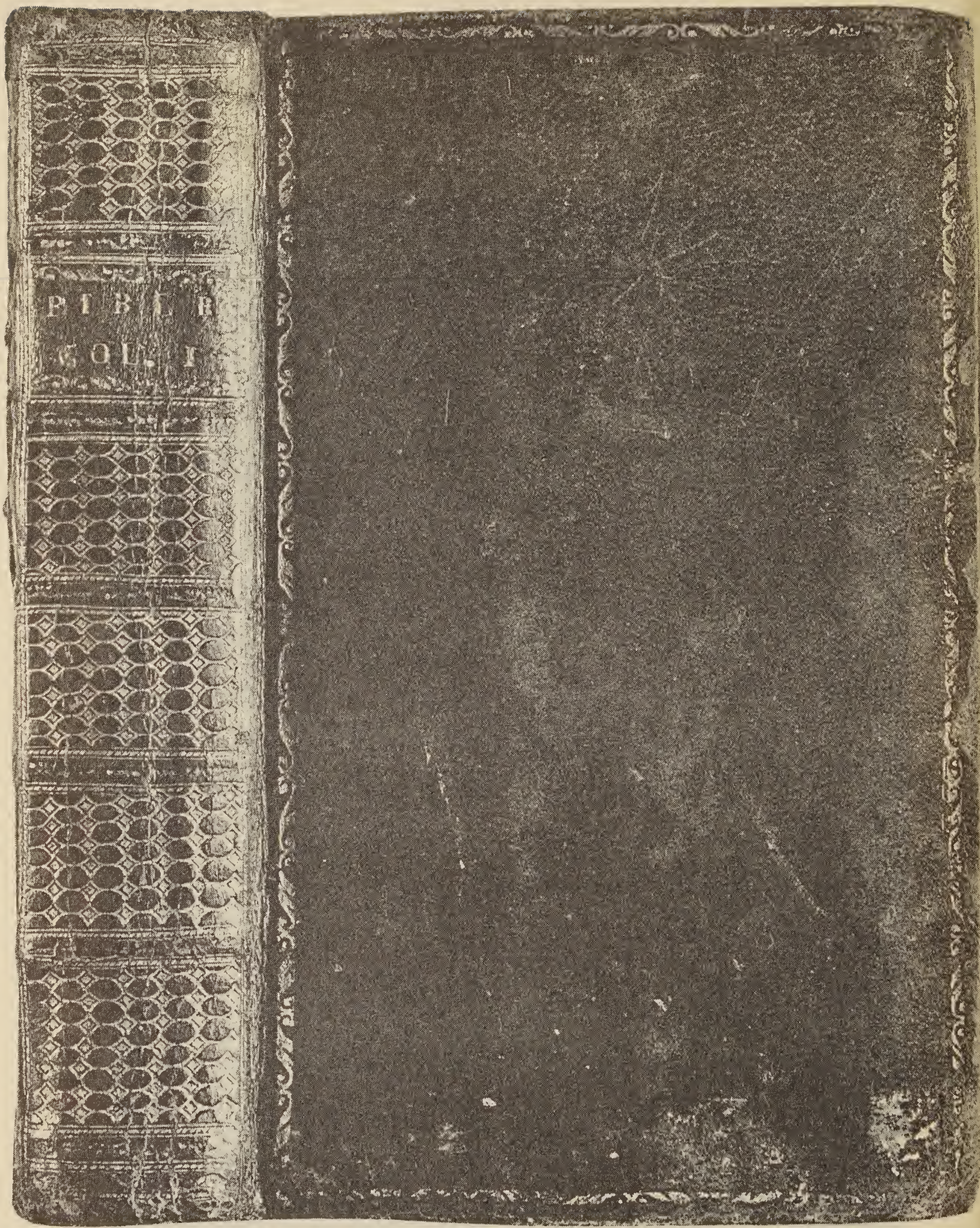


PLATE 84. XVIII Century American Binding, Attributed to Robert Aitken.



PLATE 85. *Group of XVI Century Gauffered Edges.*



PLATE 86. Fore-edge Painting Signed by Lewis, 1653.

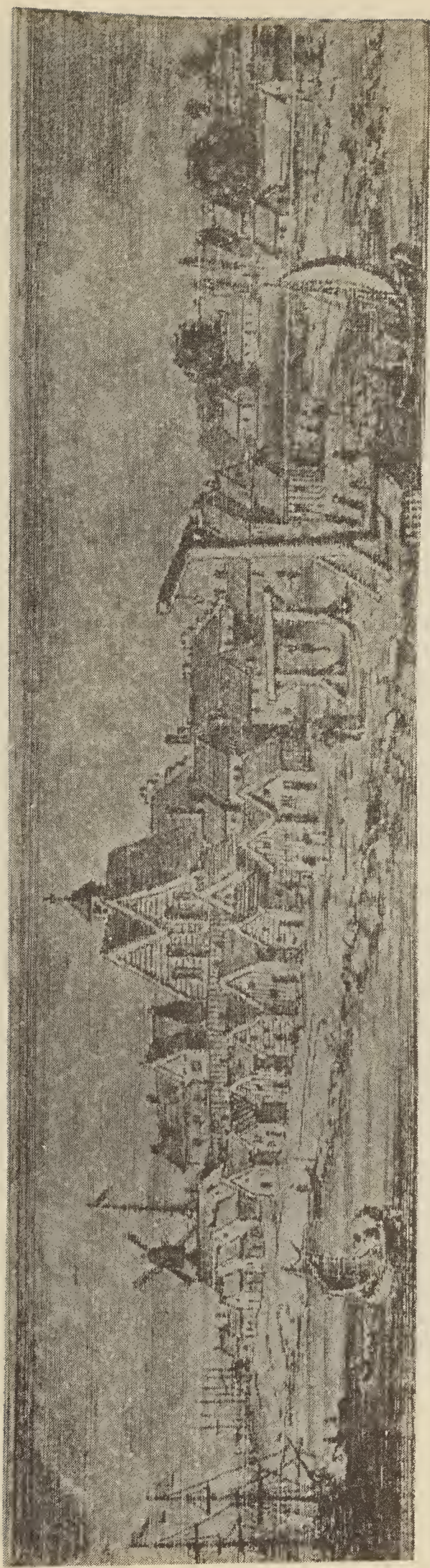


PLATE 87. *Fore-edge Painting, View of New York.*

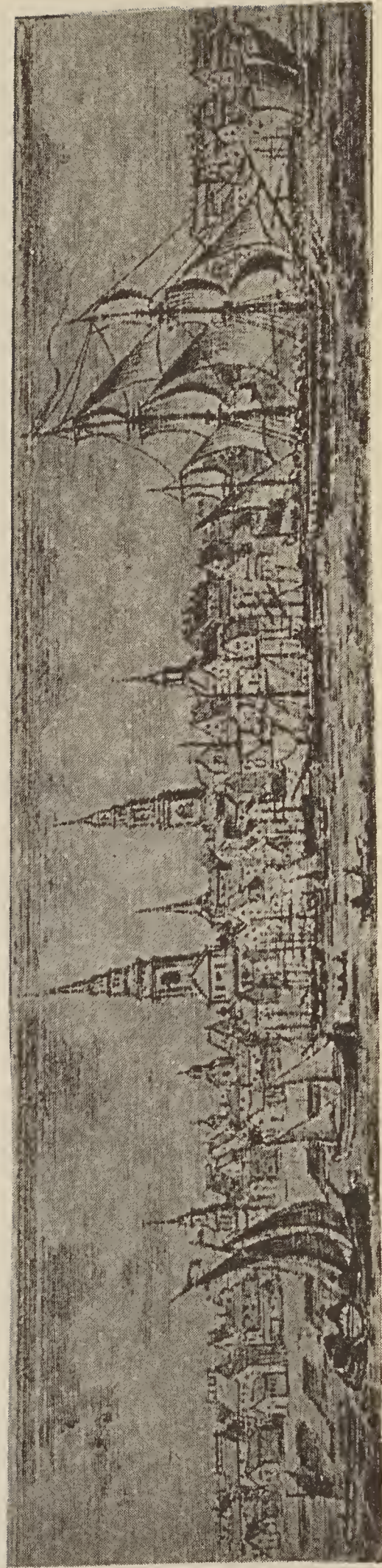


PLATE 88. *Force-edge Painting, View of Philadelphia.*



PLATE 89. Mexican Branded-edge Books, XVII Century.



PLATE 90. *Cumdach of the Gospel of St. Molaise.*

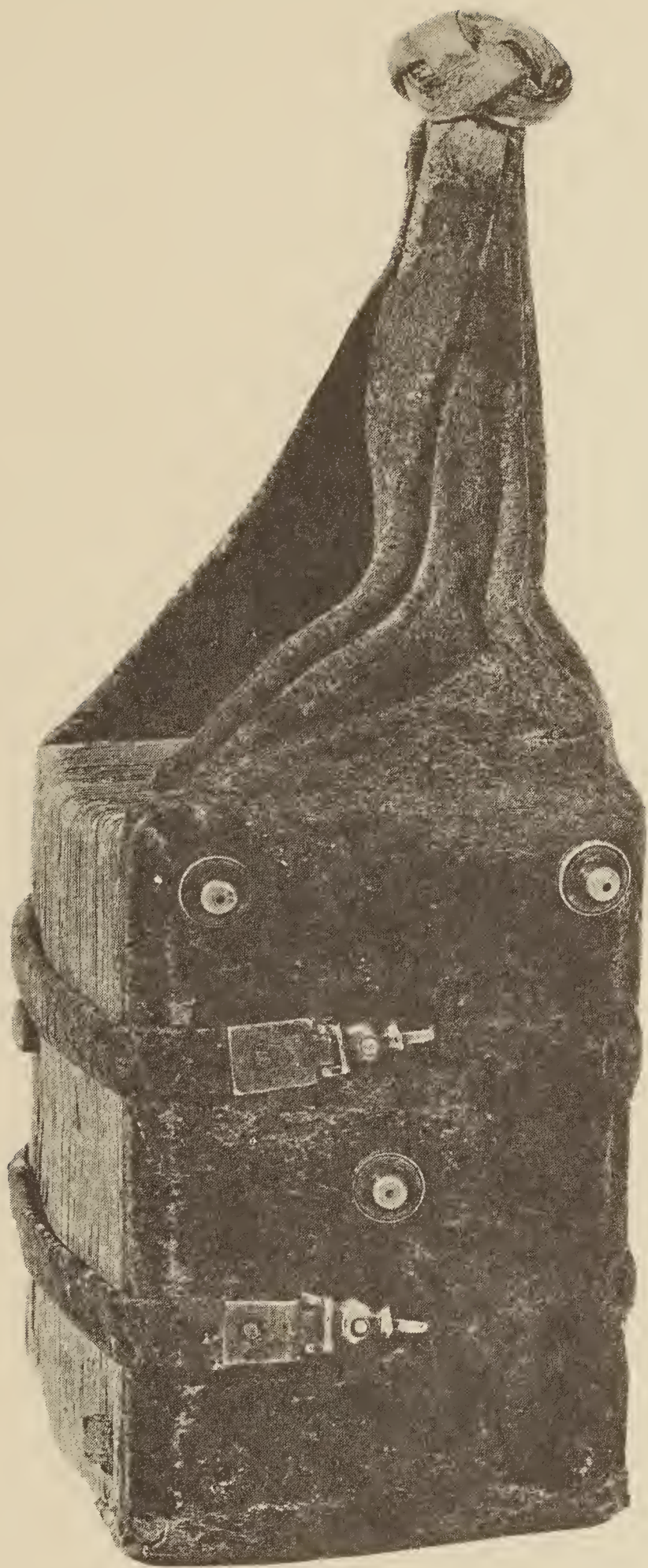


PLATE 91. *German Girdle Book, XV Century.*

